

MERIDIAN OIL

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NOV 14 1986

DIVISION OF
OIL, GAS & MINING

November 12, 1986

State of Utah Natural Resources
Oil, Gas and Mining
355 W. North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Attention: Arlene Sollis

Re: Application for Permit to Drill
21-14 Cherokee-Federal
NENW Section 14-37S-23E
San Juan County, Utah
Federal Lease No. U-46825

Gentlemen:

Enclosed are three copies of Form 3160-3, Application for Permit to Drill with attachments for the above referenced location.

Please be advised that Meridian Oil Inc. requests that all pertinent data for this location be granted TIGHT HOLE status.

If you have any questions, please do not hesitate to call me at 406-256-4122.

Sincerely,



S. S. Nelson
Sr. Operations Technician

ssn

Encl

1175N

CONFIDENTIAL UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>			5. LEASE DESIGNATION AND SERIAL NO. U-46825
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>			6. IF INDIAN, ALLOTTEE OR TRIBE NAME N/A
2. NAME OF OPERATOR MERIDIAN OIL INC.			7. UNIT AGREEMENT NAME N/A
3. ADDRESS OF OPERATOR P. O. Box 1855, Billings, MT 59103			8. FARM OR LEASE NAME Cherokee-Federal
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface NENW (810' FNL - 1550' FWL) At proposed prod. zone Same			9. WELL NO. 21-14
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 15 miles northwest of Hatch Trading Post			10. FIELD AND POOL, OR WILDCAT UNDESIGNATED Cherokee (Wildcat)
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any) 810'			11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Section 14-37S-23E
16. NO. OF ACRES IN LEASE 1600			12. COUNTY OR PARISH 13. STATE San Juan Utah
17. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.			17. NO. OF ACRES ASSIGNED TO THIS WELL 40
18. PROPOSED DEPTH 6200' <i>ahh</i>			20. ROTARY OR CABLE TOOLS Rotary
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 5618' GL (graded)			22. APPROX. DATE WORK WILL START* 4th Quarter, 1986

23. PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2	13-3/8	48#	80'	Redi-Mix to surface
11	8-5/8	24#	2,050'	Single stage. Cmt to sfc w/395 sx "B" + 3% salt+16% gel+.2% rtrdr & 110 sx "B"+2% CaCl ₂
7-7/8	5-1/2	15.5#	6,200'	Single stage. TOC @ 1850'. Cal log+20% excess. "B"+16% gel+3% salt+.4% rtrdr & "B"+3% Kcl+.8% fluid loss.

Oil and Gas Order #1
Attachments:
Survey Plat
Eight Point Drilling Program
Thirteen Point Surface Use Plan

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NOV 14 1986

**DIVISION OF
OIL, GAS & MINING**

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED *B. J. Winstead* TITLE Sr. Drilling Engineer DATE 11/12/86
(This space for Federal or State office use)

PERMIT NO. 43-037-31290

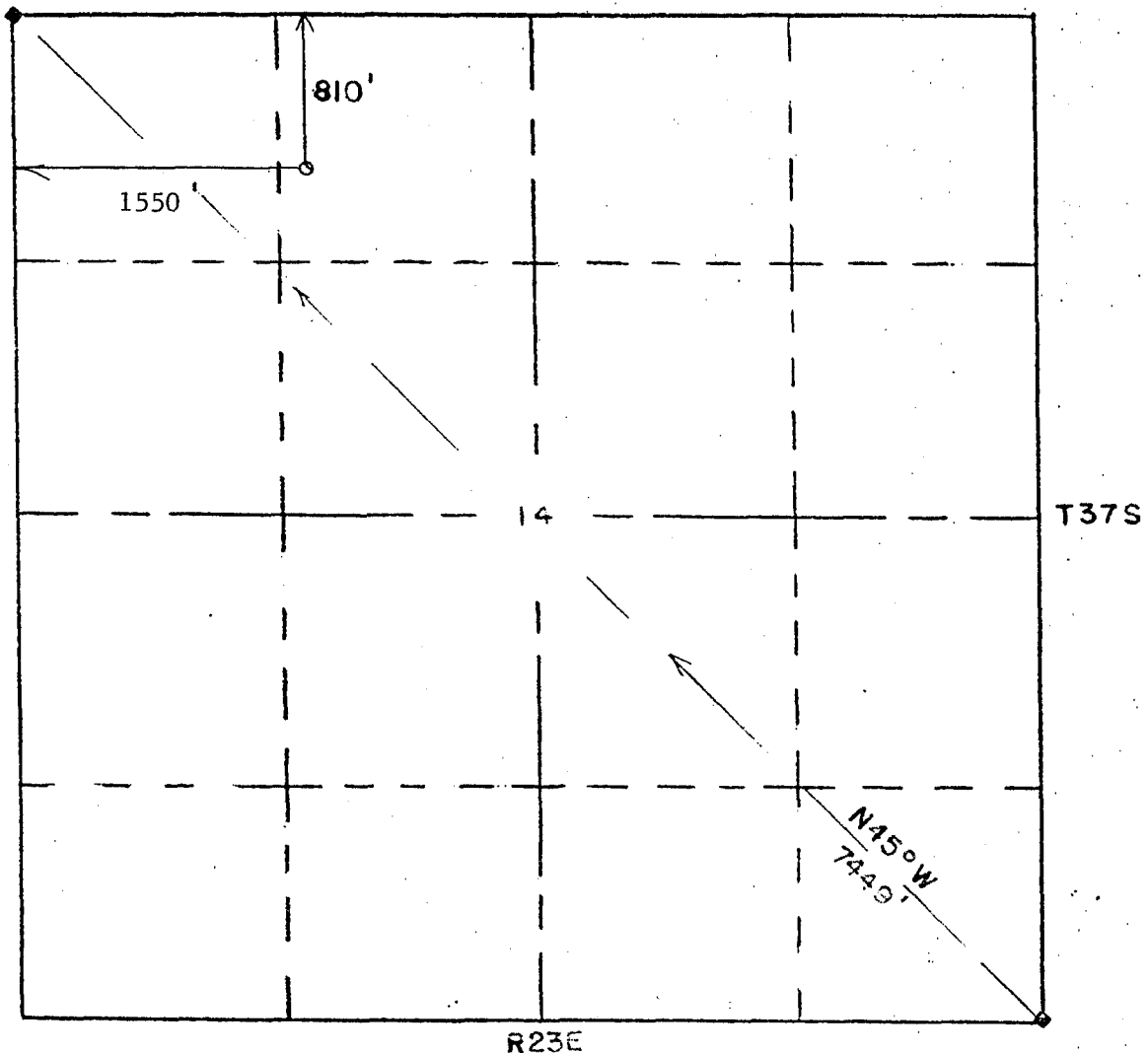
APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING

APPROVED BY _____
CONDITIONS OF APPROVAL, IF ANY:

TITLE _____
DATE: 11/12/86
BY: *[Signature]*
WELL SPACING: 302.1

*See Instructions On Reverse Side

WELL LOCATION FLAT

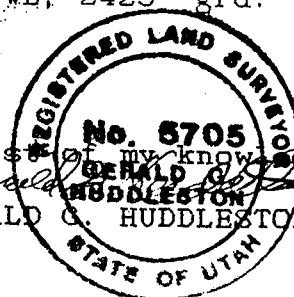


WELL LOCATION DESCRIPTION:

Meridian Oil Cherokee Federal 21-14
 1550'FWL' & 810'FNL
 Section 14, T.37 S., R.23 E., SLM
 San Juan County, Utah
 5619' ground elevation
 Reference: 800'FNL & 1470'FWL, 2425' grd.
 30 Oct. 1985

The above is true to the best of my knowledge.

GERALD C. HUDDLESTON



1342N

OIL AND GAS ORDER NO. 1

MERIDIAN OIL INC.

LEASE NAME: 21-14 Cherokee-Federal
LEASE NO. U-46825
LOCATION: NENW Section 14-37S-23E
810' FNL - 1550' FWL
San Juan County, Utah
Cherokee Prospect

A. EIGHT POINT DRILLING PROGRAM

1. & 2. Estimated Tops:

Morrison	Surface	
Entrada	844	
Navajo	1060	fresh water
Chinle	2020	
Shinarump	2620	
Cutler	3005	
Hermosa	4820	
Upper Ismay	5820	oil
Top Porosity	5860	
A Shale	5950	
Lower Ismay	5980	
Desert Creek	6060	oil
Chimney Rock	6130	
Akah	6150	
TD	6200	

3. Pressure Control Equipment:

- a. A 2000 psi WP wellhead will be installed on the surface casing. A 3000 psi WP Annular preventer and 3000 psi WP double gate preventer equipped with blind and pipe rams will be nipped up on wellhead.
- b. BOP systems will be consistent with API RP 53. Annular preventer will be tested to 1500 psi against casing. Pipe and blind rams, choke line and manifold will be tested to 2000 psi against casing. Casing will be tested to 2000 psi prior to drilling float shoe. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout preventor controls will be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. Preventers will be pressure tested before drilling casing cement plugs. The San Juan Resource Area will be notified 1 day before pressure testing.

4. Casing program:

Anticipated cement tops will be reported as to depth, not the expected number of sacks. The San Juan Resource Area will be notified 1 day before running casing strings and cement.

O&G Order No. 1
21-14 Cherokee-Federal
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Hole Size	Size	Depth	Weight	Grade	Casing Thrd	Cond	Cementing Program
17-1/2	13-3/8	80	48#	H-40	ST&C	New	Redi-Mix to surface.
11	8-5/8	2,050	24#	K-55	ST&C	New	Single stage. Cement to sfc w/395 sx "B" + 3% salt + 16% gel + .2% retarder & 110 sx "B" + 2% CaCl ₂ .
7-7/8	5-1/2	6,200	15.5#	K-55	LT&C	New	Single stage. TOC @ 1850'. Caliper log + 20% excess. "B" + 16% gel + 3% salt + .4% retarder & "B" + 3% Kcl + .8% fluid loss.

5. Proposed drilling mud program:

A water base mud system from surface to TD. Maximum anticipated mud weight is 9.3#/gallon.

A mud logging unit will be on location from 3300' to TD.

6. Testing program:

Upper Ismay - Probable
Desert Creek - Possible

Logging program:

GR/DLL/MSFL Base surface casing to TD (GR to surface)
GR/CNL/FDC Base surface casing to TD
GR/Sonic Base surface casing to TD (GR to surface display)
Directional Survey Base surface casing to TD
Dipmeter: If Desert Creek indicates productive.

Coring program:

None planned.

Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. Two copies of all logs, core descriptions, core analysis, well-test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. If requested, samples (cuttings, fluids, and/or gases) will be submitted to the District Manager.

7. Anticipated abnormal BHP or BHT:

No abnormal BHP or BHT are expected in this well.

Potentially hazardous conditions anticipated:

No H₂S has been found, reported or is known to exist at these depths in this area.

8. Anticipated Starting Dates and Notifications of Operations

The operator will contact the San Juan Resource Area at 801-587-2141, 48 hours before beginning any dirt work.

No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the District Manager. If operations are to be suspended, prior approval of the District Manager will be obtained and notification given before resumption of operations.

The spud date will be reported orally to the San Juan Area Manager, a minimum of 24 hours before spudding. A Sundry Notice (Form 3160-5) will be sent within 24 hours after spudding, reporting the spud date and time. The Sundry will be sent to the District Manager. If the spudding is on a weekend or holiday, the Sundry will be submitted on the following regular work day.

In accordance with Onshore Oil and Gas Order No. 1, this well will be reported on Form 9-329 "Monthly Report of Operations," starting with the month in which operations begin and continue each month until the well is physically plugged and abandoned. This report will be sent to the BLM District Office, P. O. Box 970, Moab, Utah 84532.

Immediate Report: Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported to the Resource Area in accordance with requirements of NTL-3A.

If a replacement rig is planned for completion operations, a Sundry Notice (Form 3160-5) to that effect will be filed, for prior approval of the District Manager. All conditions of this approved plan are applicable during all operations conducted with the replacement rig. In emergencies, verbal approval can be given by the District Petroleum Engineer.

If the well is successfully completed for production, then the District Manager will be notified when the well is placed in a producing status. Such notification will be sent by telegram or other written communication, not later than 5 business days following the date on which the well is placed on production.

No well abandonment operations will begin without the prior approval of the District Manager. In the case of newly drilled dry holes or failures, and in emergencies, oral approval will be obtained from the District Petroleum Engineer. A "Subsequent Report of Abandonment" (Form 3160-5), will be filed with the District Manager, within 30 days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration.

Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the San Juan Area Manager, or the appropriate surface manager.

Approval to vent/flare gas during initial well evaluation will be obtained from the District Office. This preliminary approval will not exceed 30 days or 50 MMCF gas. Approval to vent/flare beyond this initial test period will require District Office approval pursuant to guidelines in NTL-4A.

Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR 3162.6. The following information will be permanently beaded-on with a welding torch: Fed, well number, location by 1/4 1/4 section, township and range, Lease number.

A first production conference will be scheduled within 15 days after receipt of the first production notice. The San Juan Area Manager will schedule the conference.

Other: A separate rig will be used for completion operations.

The following may be inspected and/or witnessed:

1. The cementing and testing of surface casing.
2. (Dry Hole) Setting and testing of surface casing shoe plug.
3. (Depleted Producer) The setting and testing of plugs across the producing horizon and if applicable, the surface casing shoe plug and/or annulus (casing to formation) squeeze jobs.

Notify the San Juan Resource Area (Mike Wade) one day or on dry hole as soon as possible prior to the above at (801) 587-2141 (Home) (801) 587-2026 or if unable to reach Mike, call Moab District office Greg Noble at (801) 259-6111 (Home) (801) 259-8811.

B. THIRTEEN POINT SURFACE USE PLAN

1. Existing Roads (Yellow)

- a. Location of proposed well in relation to town or other reference point:
15 miles northwest of Hatch Trading Post.
- b. Proposed route to location. (See attached Exhibit "1").
- c. Existing and new access shall be maintained in good or better condition.
- d. An encroachment permit will be obtained from the San Juan County Road Department.

2. Planned Access Roads (Blue)

- a. The maximum total width will be 30 feet for 1-1/2 miles.
- b. Maximum grade is 10%.
- c. Turnouts will be constructed as needed.
- d. Road is centerline flagged.
- e. Road will be drained as needed.
- f. If access is utilized during wet winter weather, road surfacing may be required to prevent road maintenance problems.
- g. Road right-of-way across Section 15 to County Road will be necessary.

Each fence which is crossed by the road will be braced and tied off before cutting to prevent slackening of the wire. A gate or cattleguard which must be approved by BLM, will be installed.

If road construction cuts through natural topography which serves as a livestock barrier, a fence shall be constructed.

Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance by the San Juan Area Manager.

The access road will be water barred or brought to Class III Road Standards within 60 days of dismantling of the drill rig. If this time frame cannot be met, the San Juan Area Manager will be notified so that temporary drainage control can be installed along the access road.

The Class III Road Standards which ensure drainage control over the entire road through the use of natural, rolling topography; ditch turnouts; drainage dips; outsloping; crowning; low water crossing; and culverts will be determined at the appropriate field inspection.

3. Location of Existing Wells (1 mile radius)

a. Existing wells in the area are shown on attached Exhibit "1".

4. Location of Existing and/or Proposed Facilities if Well is Productive

Battery facility is shown on attached Exhibit "4".

All permanent (on site for 6 months or longer) above ground facilities (including pump jacks) will be painted a flat, nonreflective, earthtone color to match the standard environmental colors, as determined by the Rocky Mountain 5-State Interagency Committee. All facilities will be painted within 6 months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The color will be Desert Brown.

All flowlines will be buried parallel to existing roads unless authorized otherwise by BLM.

If a tank battery is constructed on this lease, it will be surrounded by a dike of sufficient capacity to contain 1-1/2 times the storage capacity of the battery.

All loading lines will be placed inside the berm surrounding the tank battery.

All site security guidelines identified in 43 CFR 3162.7 regulations will be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed.

All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the District Manager.

Gas meter runs for each well will be located within 500 feet of the wellhead. The gas flowline will be buried from the wellhead to the meter and 500 feet downstream of the meter run or any production facilities. Meter runs will be housed and/or fenced.

The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place before any deliveries. Tests for meter accuracy will be conducted monthly for the first 3 months on new meter installations and at least quarterly thereafter. The San Juan Area Manager will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to the San Juan Area Manager. All meter measurement facilities will conform with the API standards for liquid hydrocarbons and the AGA standard for natural gas measurement.

5. Location and Type of Water Supply

All water needed for drilling purposes will be hauled by Hay Hot Oil Service, a commercial water hauler, from a private source.

6. Source of Construction Materials

Native soil materials from drilling location and access trail, which is available, will be used. Any additional materials needed will be hauled in from authorized commercial sources.

The use of materials under BLM jurisdiction will conform to 43 CFR 3610.2-3.

7. Methods for Handling Waste Disposal

The reserve pit will not be lined with commercial bentonite sufficient to prevent seepage. At least half of the capacity will be in cut.

Three sides of the reserve pit will be fenced with four strands of barbed wire before drilling starts. The fourth side will be fenced as soon as the drilling is completed. The fence will be kept in good repair while the pit is drying.

A trash pit will be constructed near the mud tanks and dug at least six feet into solid undisturbed material. It will be totally enclosed with a fine wire mesh before the rig moves in. The road and pad will be kept litter free.

A burning permit is required for burning trash between May 1 and October 31. This can be acquired by contacting the San Juan County Sheriff at (801) 587-2237.

Produced waste water will be confined to a (unlined) pit for a period not to exceed 90 days after initial production. During the 90 day period, an application for approval of a permanent disposal method and location, along with the required water analysis, will be submitted for the District Manager's approval pursuant to Onshore Oil and Gas Order No. 3 (NTL-2B).

8. Ancillary Facilities

Camp facilities will not be required.

9. Well Site Layout

Rig layout is shown on attached Exhibit "9a".

Cuts and fills are shown on attached Exhibit "9b".

The reserve pit will be located on east side of location.

The top 12 inches of soil material will be removed from the location and stockpiled between pad and pit on the southeast side of well pad. Topsoil along the access will be reserved in place.

Access to the well pad will be from the southwest.

10. Reclamation:

- a. Immediately on completion of drilling, all trash and debris will be collected from the location and surrounding area. All trash and debris will be disposed of in the trash pit and will then be compacted and buried under a minimum of two feet of compacted soil.
- b. The operator/holder or his contractor will contact the San Juan Resource Area office in Monticello, Utah, (801) 587-2141, 48 hours before starting reclamation work that involves earthmoving equipment and upon completion of restoration measures.
- c. Before any dirt work to restore the location takes place, the reserve pit must be completely dry.
- d. All disturbed areas will be recontoured to blend as nearly as possible with the natural topography. This includes removing all berms and refilling all cuts.
- e. The stockpiled topsoil will be spread evenly over the disturbed area. All disturbed areas will be ripped 12 inches deep with the contour.

- f. Water bars will be built as follows to control erosion.

<u>Grade</u>	<u>Spacing</u>
2%	Every 200 feet
2-4%	Every 100 feet
4-5%	Every 75 feet
5+%	Every 50 feet

- g. Seed will be broadcast between October 1 and February 28 with the following prescription. A harrow or similar implement will be dragged over the area to assure seed cover.

<u>6</u>	lbs/acre crested wheatgrass (<u>Agropyron desertorum</u>)
<u>2</u>	lbs/acre Western wheatgrass (<u>Agropyron smithii</u>)
<u>2</u>	lbs/acre Fourwing saltbush (<u>Atriplex canescens</u>)
<u>1</u>	lbs/acre Desert bitterbrush (<u>Purshia glandulosa</u>)
<u>1/2</u>	lbs/acre Yellow sweetclover.

- h. After seeding is complete, the stockpiled trees will be scattered evenly over the disturbed areas. The access will be blocked to prevent vehicular access.
- i. The reserve pit and that portion of the location and access road not needed for production or production facilities will be reclaimed as described in the reclamation section. Enough topsoil will be kept to reclaim the remainder of the location at a future date. This remaining stockpile of topsoil will be seeded in place using the prescribed seed mixture.

11. Surface Ownership: Federal
Mineral Ownership: Federal

12. Other Information

The Archeological site on NW side of well pad will be fenced the entire length of pad.

There will be no change from the proposed drilling and/or workover program without prior approval from the District Manager. Safe drilling and operating practices must be used. All wells, whether drilling, producing, suspended, or abandoned will be identified in accordance with 43 CFR 3162.2.

"Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3164.

The dirt contractor will be provided with an approved copy of the surface use plan.

If subsurface cultural materials are exposed during construction, work in that spot will stop immediately and the San Juan Resource Area Office will be contacted. All people who are in the area will be informed by the operator/holder that they are subject to prosecution for disturbing archaeological sites or picking up artifacts. Salvage or excavation of identified archaeological sites will be done by a BLM approved archaeologist only if damage occurs.

This permit will be valid for a period of one year from the date of approval. After permit termination a new application will be filed for approval for any future operations.

Your contact with the District Office is: Greg Noble
Office Phone: 801-259-6111 Address: P. O. Box 970, Moab, UT 84532

Resource Area Manager's Address and contacts:
Address: P. O. Box 7, Monticello, UT 84535

Your contact is: Rich McClure
Office Phone: 801-587-2141

13. Lessee or Operator's Field Representative and Certification

Meridian Oil Inc.

P. O. Box 1855


Billings, Montana 59103

1. Johnny L. Wright, Drilling Supt.	406-256-4175	406-252-2889
2. Bill Lloyd, Drilling Engineer	406-256-4129	406-252-2328
3. John Pulley, Completion Supt	406-256-4124	406-259-6156
4. Barry Winstead, Sr. Drilling Engineer	406-256-4030	406-656-7521

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CERTIFICATION:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct, and, that the work associated with the operations proposed herein will be performed by Meridian Oil Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.



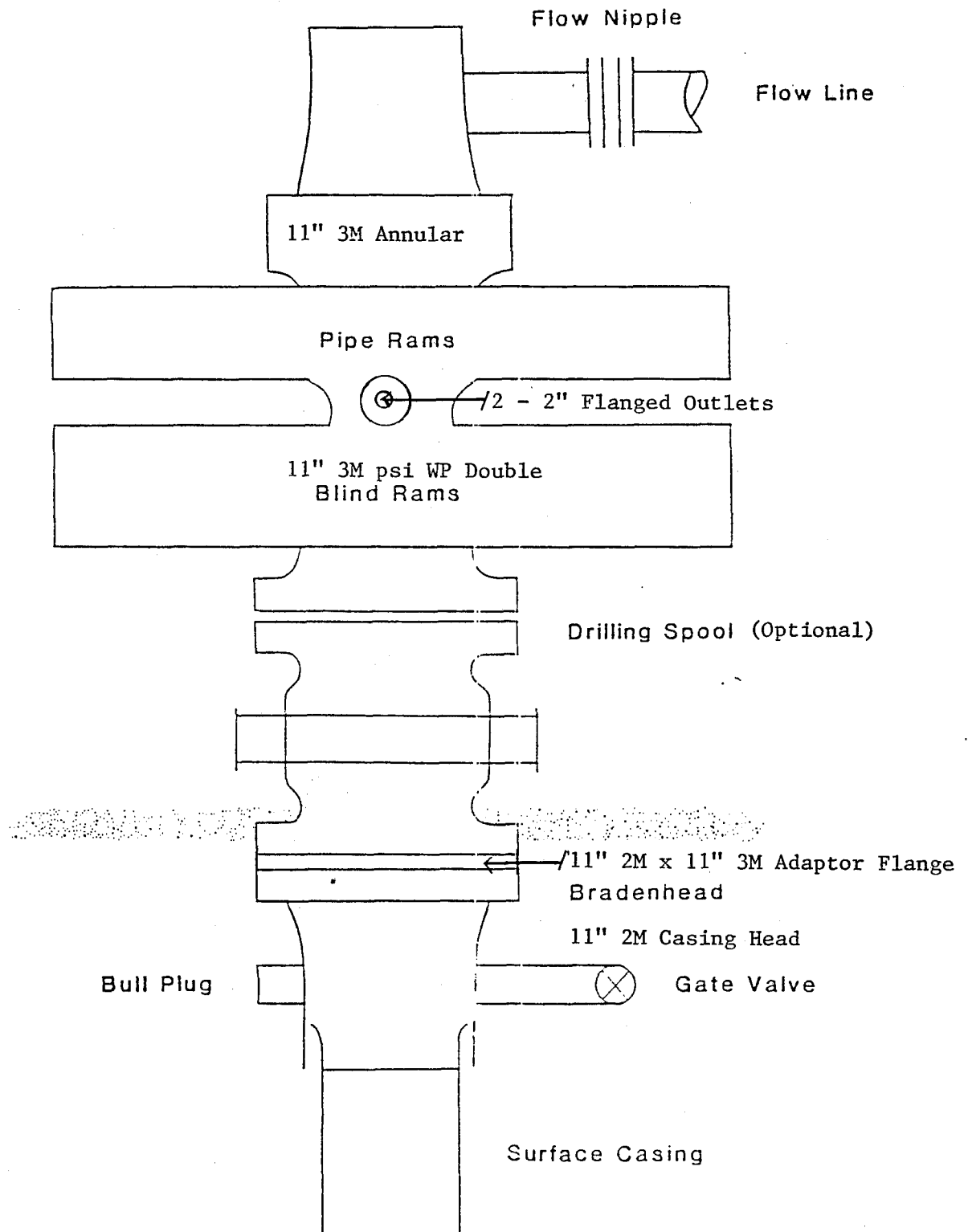
Barry J. Winstead
Sr. Drilling Engineer



Date

ssn

TYPICAL B.O.P. INSTALLATION



Series 900 Double Gate B.O.P.,
rated at 3000 psi Working Pressure.

When gas drilling operations begin a Shaffer type 50 or equivalent rotating head is installed on top of the flow nipple and the flow line is converted into a blowie line.

WELL PAD PLAN VIEW

Cherokee Federal 21-14

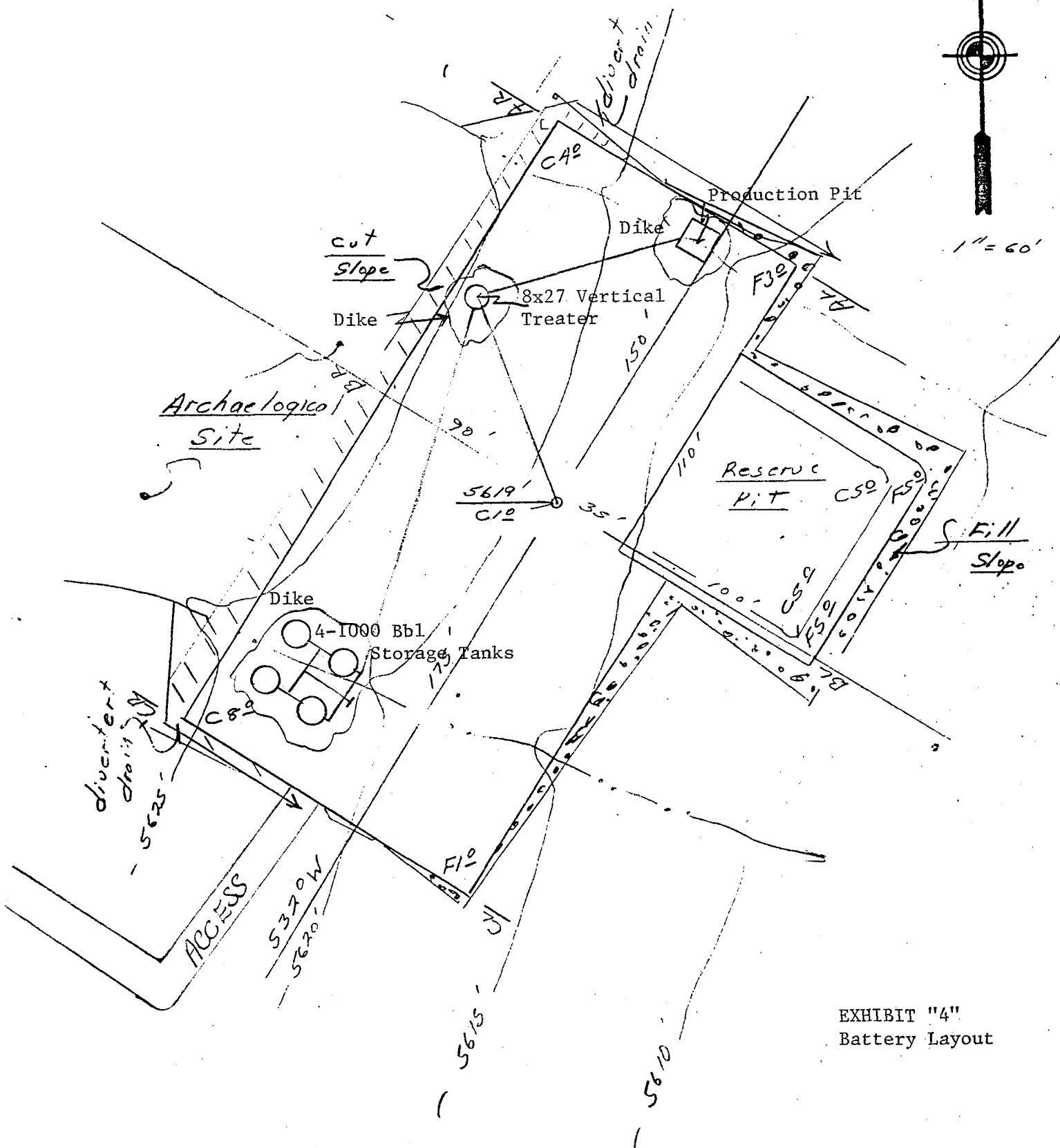


EXHIBIT "4"
Battery Layout

WELL PAD PLAN VIEW

Cherokee Federal 21-14



1" = 60'

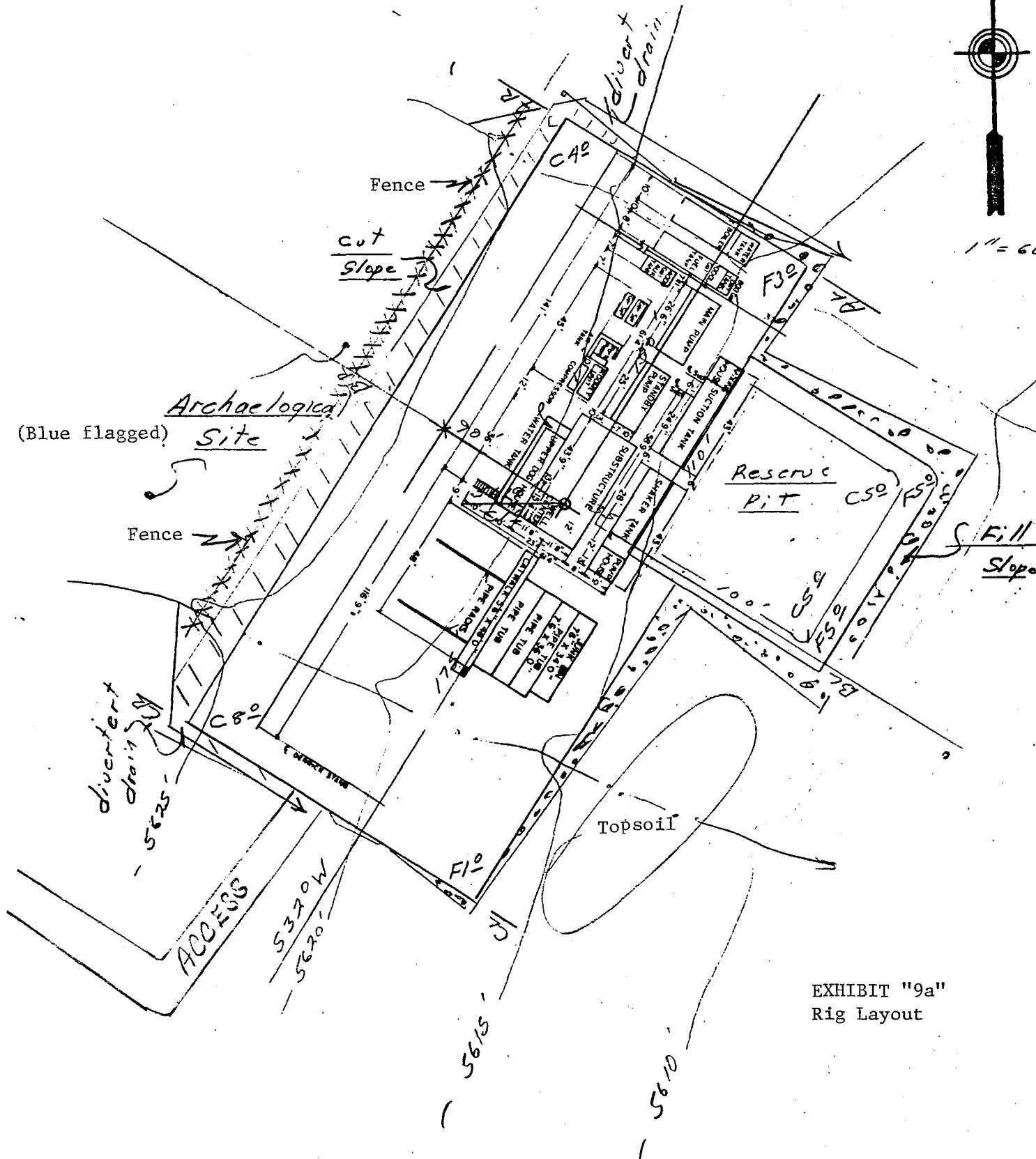



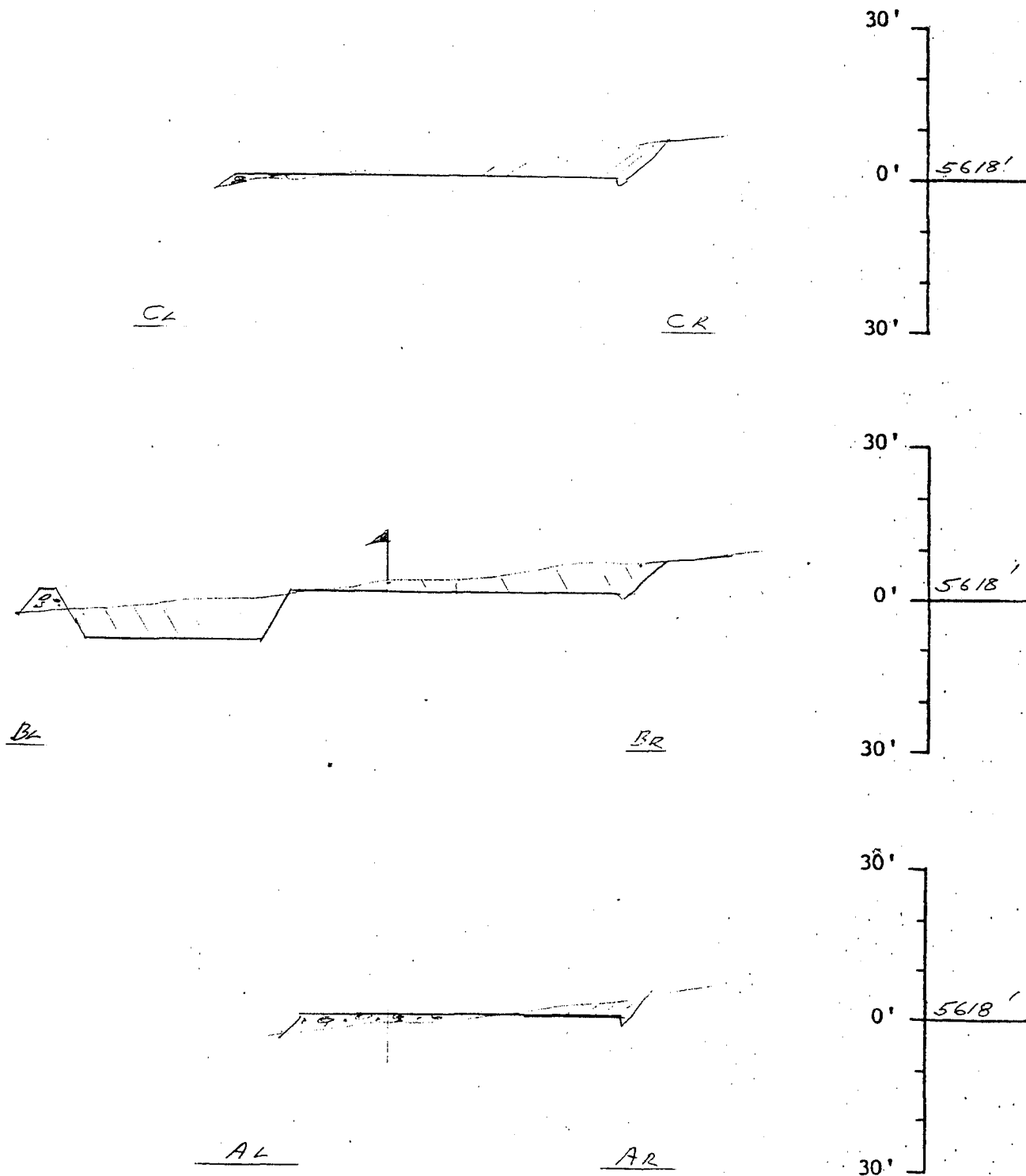
EXHIBIT "9a"
Rig Layout

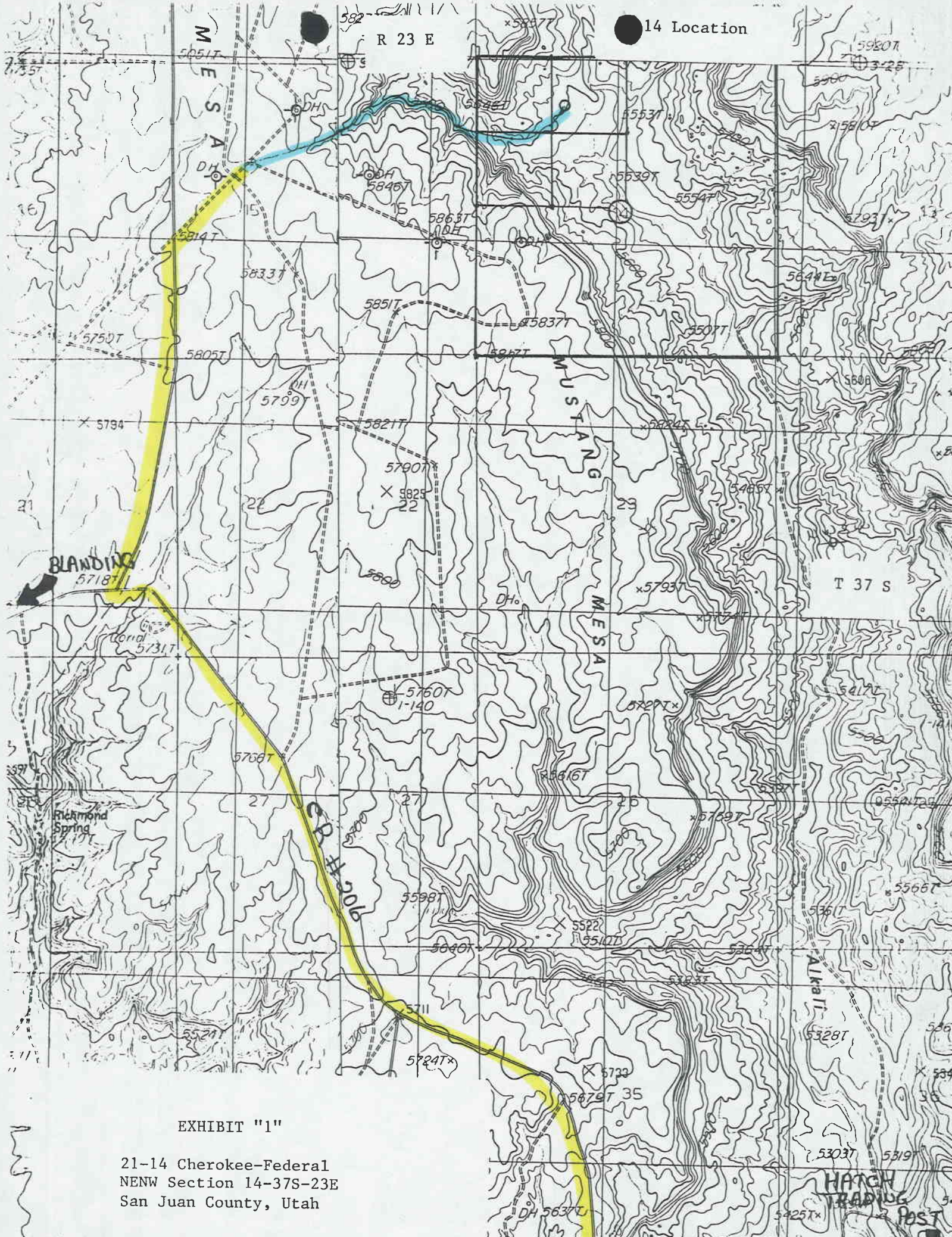
WELL PAD CROSS-SECTION

Cut /////
Fill 

Scales: 1" = 60' H.
1" = 30' V.

Cherokee Federal 21-14





14 Location

R 23 E

T 37 S

BLANDING

Richmond Spring

MUSTANG
MESA

Alkali

HATCH
TRADING
POST

EXHIBIT "1"

21-14 Cherokee-Federal
NENW Section 14-37S-23E
San Juan County, Utah

DESIGNATION OF OPERATOR

The undersigned is, on the records of the Bureau of Land Management, holder of lease

DISTRICT LAND OFFICE: Moab, Utah
SERIAL No.: U-46825

and hereby designates

NAME: Meridian Oil Inc.
ADDRESS: 5613 DTC Parkway
Englewood, Colorado 80111

as his operator and local agent, with full authority to act in his behalf in complying with the terms of the lease and regulations applicable thereto and on whom the supervisor or his representative may serve written or oral instructions in securing compliance with the Operating Regulations with respect to (describe acreage to which this designation is applicable):

T37S-R23E, S.L.M.

Section 14: W/2

320.00 acres, more or less
San Juan County, Utah

It is understood that this designation of operator does not relieve the lessee of responsibility for compliance with the terms of the lease and the Operating Regulations. It is also understood that this designation of operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated operator, the lessee will make full and prompt compliance with all regulations, lease terms, or orders of the Secretary of the Interior or his representative.

The lessee agrees promptly to notify the supervisor of any change in the designated operator.

Celeste C. Grynberg

Celeste C. Grynberg
.....
(Signature of lessee)
5000 So. Quebec - Suite 500
Denver, Colorado 80237

November 17, 1986

.....
(Date)

.....
(Address)

AFFIDAVIT

STATE OF COLORADO)
) ss.
COUNTY OF ARAPAHOE)

TO WIT:

Now, this 21st day of November, 1986, comes the affiant herein, WILLIAM C. MITCHELL, being of lawful age and the first duly sworn, and does now depose and say:

THAT he is employed as a Landman with Meridian Oil Inc., and in said capacity is acquainted with the facts and allegations herein, and

THAT the plats attached hereto and made a part hereof as "Exhibit A" and "Exhibit B" are accurate to scale and reflects pertinent data required pursuant to oil & gas conservation rule No. 302.1,

Township 37 South, Range 23 East
Section 14: NW/4

THAT Meridian Oil Inc. and its partner, BWAB Inc., have secured the drilling rights from Celeste C. Grynberg under that certain farmout agreement effective November 11, 1986 along with a Designation of Operator form (attached), and thereby control the operating rights in the leasehold interest under the following described lands in San Juan County, Utah:

Township 37 South, Range 23 East
Section 14: NW/4

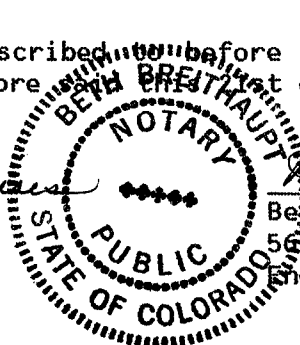
THAT no other parties are required to be notified in accordance with Rule number 302.1(a)(2) of the General Conservation Rules of the Utah Board of Oil, Gas and Mining.

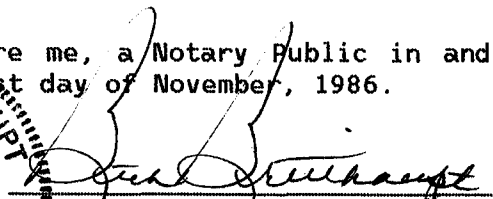
Further affiant sayeth not.


William C. Mitchell

Taken, sworn and subscribed to before me, a Notary Public in and for the County and State afore said, at day of November, 1986.

My commission expires
9-9-88




Beth Breithaupt, Notary Public
5613 DTC Parkway
Englewood, CO 80111

CONFIDENTIAL

120214-APD

110402 Off Conf

OPERATOR Mendocino Oil Inc DATE 11-17-86

WELL NAME Cherokee Feb. 21-14

SEC NE NW 14 T 37 S R 23 E COUNTY San Juan

43-037-31290
API NUMBER

Feb.
TYPE OF LEASE

CHECK OFF:

☒ PLAT

☒ BOND

☒ NEAREST WELL

☒ LEASE

☒ FIELD

☒ POTASH OR OIL SHALE

PROCESSING COMMENTS:

No other wells in Sec. 14

Need water permit

Exp. Lic. reg. rec. 11/25/86

APPROVAL LETTER:

SPACING: ☐ 203 UNIT

☐ 302

☐ CAUSE NO. & DATE

☒ 302.1

STIPULATIONS:

1- Water

MERIDIAN OIL

November 24, 1986

DIVISION OF OIL, GAS AND MINING
Department of Natural Resources
State of Utah
355 West North Temple
III Triad Center, Suite 350
Salt Lake City, Utah 84108-1203

APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING

DATE: 11/25/86
BY: [Signature]

RE: Request for Exception
#21-14 Cherokee Federal
Location: NE/4NW/4
Sec. 14, T37S-R23E, SLM

Gentlemen:

Meridian Oil Inc. plans to commence a well at the following location in the near future:

1550' FWL, 810' FNL, Section 14, T37S-R23E, SLM,
San Juan County, Utah

This location requires approval as an exception location under Rule 302.1 of the Oil and Gas Conservation General Rules effective December 2, 1985. Under the Rules, this exception may be granted administratively.

Meridian Oil Inc. and its partner, BWAB Inc. have secured the drilling rights from the current leasehold owner, Celeste C. Grynberg under Farmout Agreement dated effective November 11, 1986. Further, Meridian Oil Inc. has been formerly designated operator of this tract pursuant to that certain Designation of Operator dated November 17, 1985, a copy of which is attached. Also, see attached Affidavit of William C. Mitchell, Landman with Meridian Oil Inc.

The reason for the requested exception location is geological. As shown on the attached Exhibit "B", it is not possible to drill the optimum location on the geological feature by drilling a legal location. As a result, Meridian Oil proposes to move the location in order to remain on the geological structure and avoid a potential dry hole.

Division of Oil, Gas and Mining
Department of Natural Resources
November 24, 1986
Page 2

A Lease Ownership Plat is attached to the enclosed Affidavit as Exhibit "A". Exhibit "B" depicts the geological feature. This information is proprietary and very sensitive and therefore, it is requested that the State maintain this Plat in a confidential file.

Thank you for your consideration in this matter.

Very truly yours,

MERIDIAN OIL INC.

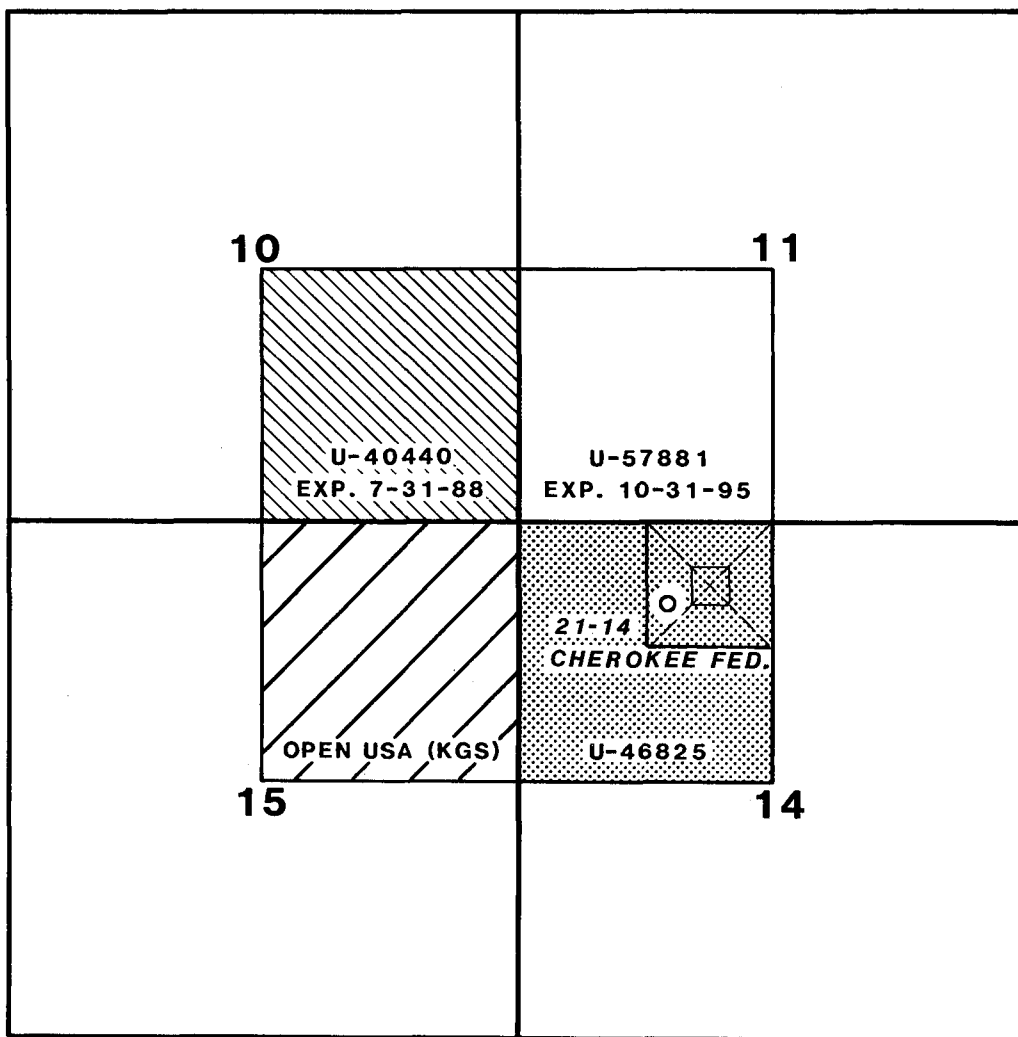


William C. Mitchell
Landman

1312L/27
Enclosures

EXHIBIT A

**T
37
S**



R 23 E

KEY: LEASEHOLD OWNERSHIP



GRYNBERG - 100% (Note: Meridian Oil, Inc. & BWAB 1984 - 1986 joint venture have a farmout agreement effective Nov. 11, 1986) (FEDERAL SERIAL NO. U-46825)



CITIES SERVICE - 100%
(FEDERAL SERIAL NO. U-40440)



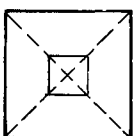
MARATHON - 100%
(FEDERAL SERIAL NO. U-57881)



OPEN - USA



PROPOSED LOCATION #21-14 CHEROKEE FED.
810' FNL - 1550' FWL



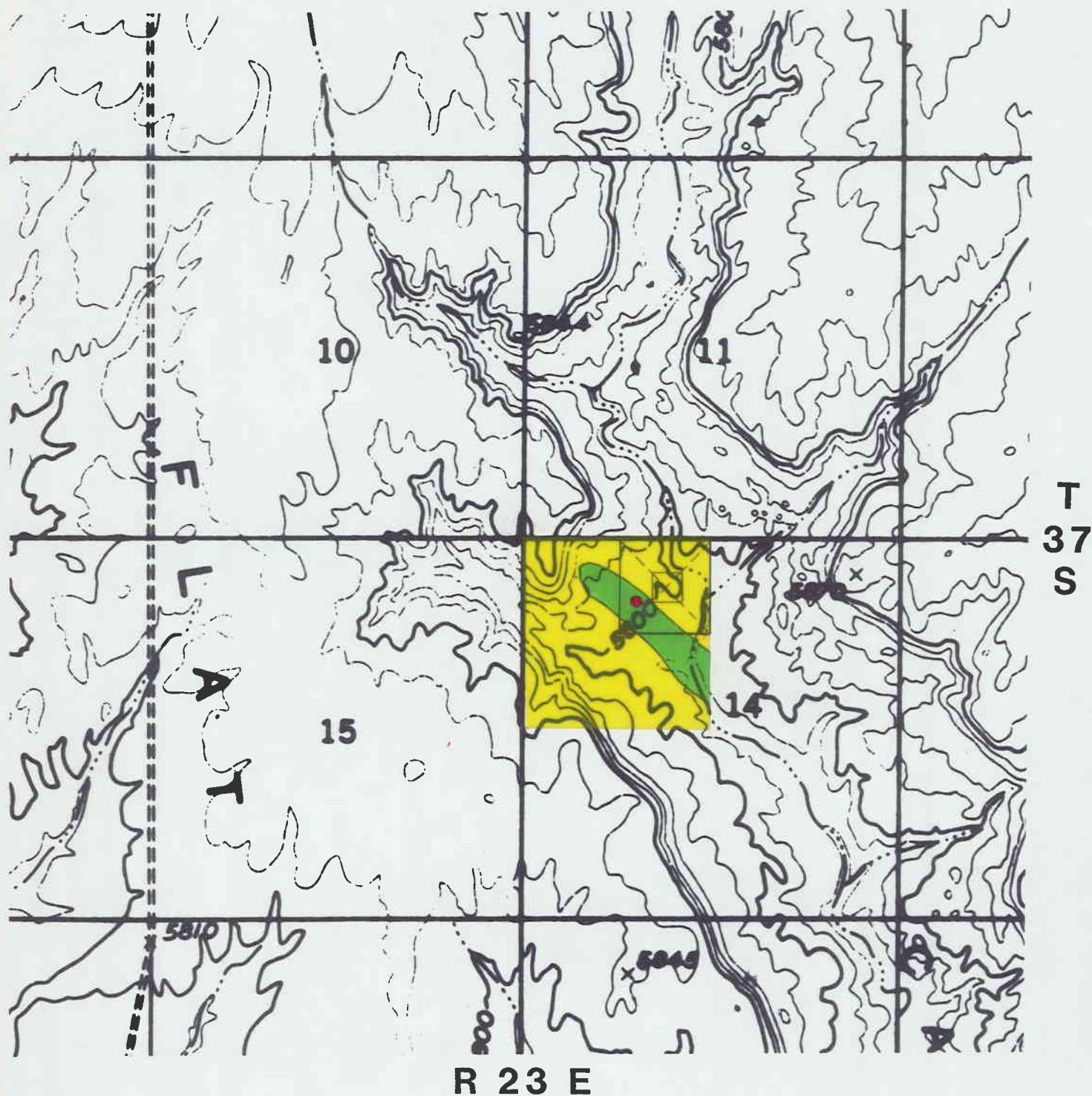
400 ft. "Window" (Pursuant to order #302)

MERIDIAN OIL

CHEROKEE PROJECT
T 37 S, R 23 E
SAN JUAN COUNTY, UTAH

SCALE: 1" = 2000'

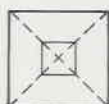
EXHIBIT "B"



MERIDIAN OIL/BWAB
FARMIN ACREAGE



Proposed Location - #21-14 Cherokee Federal
sec. 14, 810' FNL, 1550' FWL



400 ft. "Window"
center of the neww, sec.14, T37S-R23E

MERIDIAN 

CHEROKEE PROSPECT

T 37 S, R 23 E

SAN JUAN COUNTY, UTAH

Scale: 1" 2000'



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

November 26, 1986

Meridian Oil, Inc.
P. O. Box 1855
Billings, Montana 59103

Gentlemen:

Re: Cherokee Federal 21-14 - NE NW Sec. 14, T. 37S, R. 23E
810' FNL, 1550' FWL - San Juan County, Utah

Approval to drill the referenced well is hereby granted in accordance with Rule 302.1, Oil and Gas Conservation General Rules, subject to the following stipulations:

1. Prior to commencement of drilling, receipt by the Division of evidence providing assurance of an adequate and approved supply of water as required by Chapter 3, Title 73, Utah Code Annotated.

In addition, the following actions are necessary to fully comply with this approval:

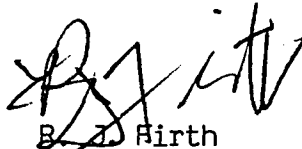
1. Spudding notification to the Division within 24 hours after drilling operations commence.
2. Submittal to the Division of completed Form OGC-8-X, Report of Water Encountered During Drilling.
3. Prompt notification to the Division should you determine that it is necessary to plug and abandon this well. Notify John R. Baza, Petroleum Engineer, (Office) (801) 538-5340, (Home) 298-7695, or R. J. Firth, Associate Director, (Home) 571-6068.
4. Compliance with the requirements and regulations of Rule 311.3, Associated Gas Flaring, Oil and Gas Conservation General Rules.

Page 2
Meridian Oil, Inc.
Cherokee Federal 21-14
November 26, 1986

5. Prior to commencement of the proposed drilling operations, plans for toilet facilities and the disposal of sanitary waste at the drill site shall be submitted to the local health department having jurisdiction. Any such drilling operations and any subsequent well operations must be conducted in accordance with applicable State and local health department regulations. A list of all local health departments and copies of applicable regulations are available from the Division of Environmental Health, Bureau of General Sanitation, telephone (801) 533-6163.
6. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-037-31290.

Sincerely,



B. J. Firth
Associate Director, Oil & Gas

as
Enclosures
cc: Branch of Fluid Minerals
D. R. Nielson
8159T

MERIDIAN OIL

December 1, 1986

DIVISION OF OIL, GAS AND MINING
Department of Natural Resources
State of Utah
355 West North Temple
III Triad Center, Suite 350
Salt Lake City, Utah 84108-1203

APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING

DATE: 12/5/86
BY: [Signature]

RE: Request for Exception
#11-14 Cherokee Federal
Location: NE/4NW/4
Sec. 14, T37S-R23E, SLM

Gentlemen:

Meridian Oil Inc. plans to commence a well at the following location in the near future:

1550' FWL, 810' FNL, Section 14, T37S-R23E, SLM,
San Juan County, Utah

The well will be directionally drilled to a bottom hole location of:

1250' FWL, 600' FNL, Section 14, T37S-R23E, SLM
San Juan County, Utah

This location requires approval as an exception location under Rule 302.1 of the Oil and Gas Conservation General Rules effective December 2, 1985. Under the Rules, this exception may be granted administratively.

Meridian Oil Inc. and its partner, BWAB Inc. have secured the drilling rights from the current leasehold owner, Celeste C. Grynberg under Farmout Agreement dated effective November 11, 1986. Further, Meridian Oil Inc. has been formerly designated operator of this tract pursuant to that certain Designation of Operator dated November 17, 1985, a copy of which is attached. Also, see attached Affidavit of William C. Mitchell, Landman with Meridian Oil Inc.

The reason for the requested exception location is geological. As shown on the attached Exhibit "B", it is not possible to drill the optimum location on the geological feature by drilling a legal location. Meridian is further prevented from drilling the optimum location due to

Division of Oil, Gas and Mining
Department of Natural Resources
December 1, 1986
Page 2

archaeological sightings in the area. As a result, Meridian Oil proposes to move the surface location as close as possible to the geological structure and directionally drill the well to the optimum bottom hole location.

A Lease Ownership Plat is attached to the enclosed Affidavit as Exhibit "A". Exhibit "B" depicts the geological feature. This information is proprietary and very sensitive and therefore, it is requested that the State maintain this Plat in a confidential file.

Thank you for your consideration in this matter.

Very truly yours,

MERIDIAN OIL INC.

A handwritten signature in cursive script, reading "William C. Mitchell".

William C. Mitchell
Landman

1328L
Enclosures

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		3. LEASE DESIGNATION AND SERIAL NO. U-46825	
2. NAME OF OPERATOR MERIDIAN OIL INC.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME N/A	
3. ADDRESS OF OPERATOR P. O. Box 1855, Billings, MT 59103		7. UNIT AGREEMENT NAME N/A	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface NENW (810' FNL - 1550' FWL) BHL - NWNW (600' FNL - 1250' FWL)		8. FARM OR LEASE NAME Cherokee-Federal	
14. PERMIT NO. 43-037-31290		9. WELL NO. 11-14	
15. ELEVATIONS (Show whether OP, RT, GR, etc.) 5618' GL (graded)		10. FIELD AND POOL, OR WILDCAT Cherokee (Wildcat)	
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Section 14-37S-23E	
		12. COUNTY OR PARISH San Juan	13. STATE Utah

16.

Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐FRACTURE TREAT ☐SHOOT OR ACIDIZE ☐REPAIR WELL ☐(Other) ☐PULL OR ALTER CASING ☐MULTIPLE COMPLETE ☐ABANDON* ☐CHANGE PLANS ☐

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐FRACTURE TREATMENT ☐SHOOTING OR ACIDIZING ☐(Other) Well Number Change ☒REPAIRING WELL ☐ALTERING CASING ☐ABANDONMENT* ☐

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

Well was originally permitted as 21-14 Cherokee-Federal. Change well number to reflect the bottom hole location as 11-14 Cherokee-Federal.

CONFIDENTIAL INFORMATION

RECEIVED
DEC 12 1986

DIVISION OF
OIL, GAS & MINING

18. I hereby certify that the foregoing is true and correct

SIGNED J. L. WrightTITLE Drilling SuperintendentDATE 12/10/86

(This space for Federal or State office use)

APPROVED BY _____

TITLE _____

DATE _____

CONDITIONS OF APPROVAL, IF ANY:

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. U-46825		
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME N/A		
2. NAME OF OPERATOR MERIDIAN OIL INC.		7. UNIT AGREEMENT NAME N/A		
3. ADDRESS OF OPERATOR P. O. Box 1855, Billings, MT 59103		8. FARM OR LEASE NAME Cherokee-Federal		
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface NENW (810' FNL - 1550' FWL) At proposed prod. zone Same		9. WELL NO. 21-14		
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 15 miles northwest of Hatch Trading Post		10. FIELD AND POOL, OR WILDCAT Cherokee (Wildcat)		
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 810'		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Section 14-37S-23E		
16. NO. OF ACRES IN LEASE 1600		12. COUNTY OR PARISH San Juan		
17. NO. OF ACRES ASSIGNED TO THIS WELL 40		13. STATE Utah		
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.		19. PROPOSED DEPTH 6200'		
20. ROTARY OR CABLE TOOLS Rotary		21. APPROX. DATE WORK WILL START* 4th Quarter, 1986		
22. ELEVATIONS (Show whether DF, RT, GR, etc.) 5618' GL (graded)				
23. PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2	13-3/8	48#	80'	Redi-Mix to surface
11	8-5/8	24#	2,050'	Single stage. Cmt to sfc w/395

RECEIVED
DEC 17 1986

DIVISION OF
OIL, GAS & MINING

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

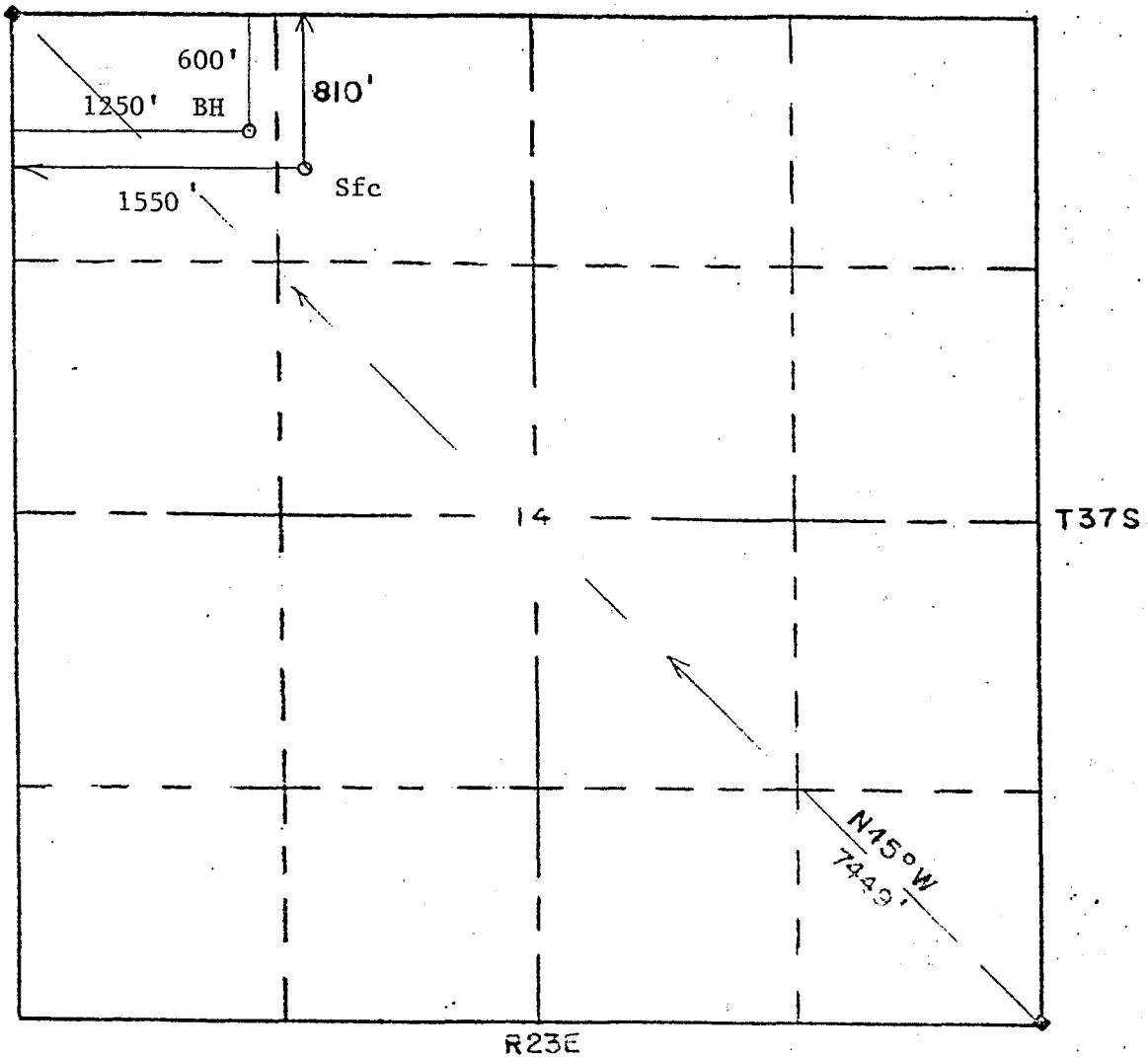
24. SIGNED B. J. Winstead TITLE Sr. Drilling Engineer DATE 11/12/86
(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

WELL LOCATION PLAT

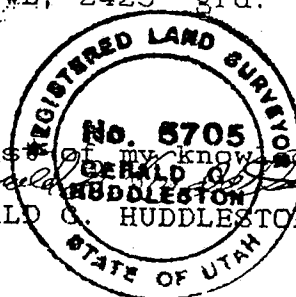


WELL LOCATION DESCRIPTION:

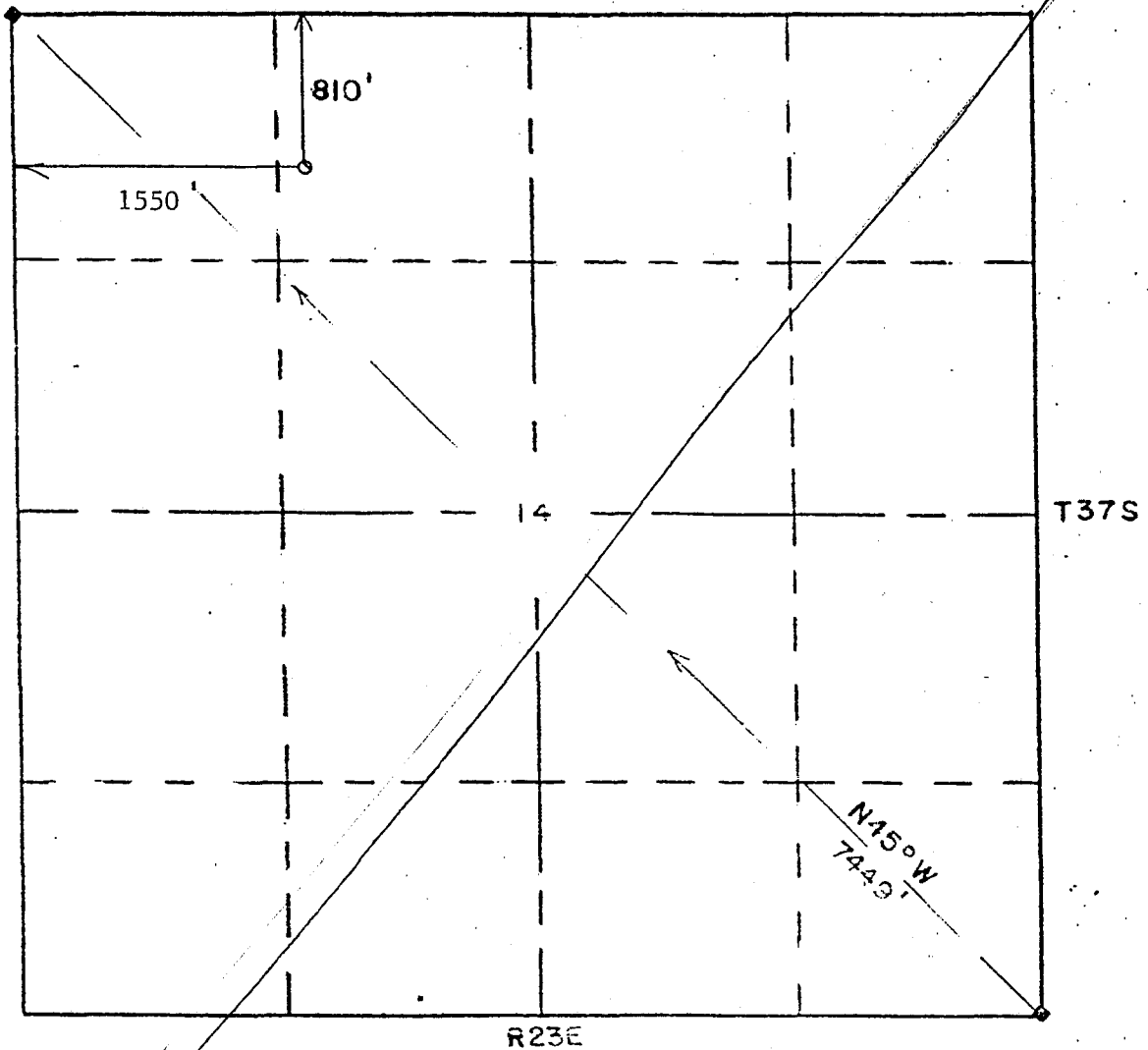
Meridian Oil Cherokee Federal 11-14
 1550'FWL' & 810'FNL
 Section 14, T.37 S., R.23 E., SLM
 San Juan County, Utah
 5619' ground elevation
 Reference: 800'FNL & 1470'FWL, 2425' grd.
 30 Oct. 1985

The above is true to the best of my knowledge.

GERALD C. HUDDLESTON



WELL LOCATION FLAT

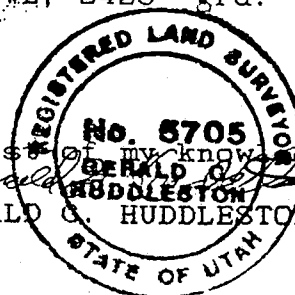


WELL LOCATION DESCRIPTION:

Meridian Oil Cherokee Federal 21-14
1550' FWL' & 810' FNL
Section 14, T.37 S., R.23 E., SLM
San Juan County, Utah
5619' ground elevation
Reference: 800' FNL & 1470' FWL, 2425' grd.
30 Oct. 1985

The above is true to the best of my knowledge.

GERALD C. HUDDLESTON



Meridian Oil Inc.
Well No. Cherokee-Federal 11-14
Sec. 14, T. 37 S., R. 23 E.
San Juan County, Utah
Lease U-46825

CONDITIONS OF APPROVAL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Meridian Oil Inc., is the bonded entity as designated operator on this application. If any assignments or designations change, liability will remain with Meridian Oil Inc., until we are formally notified by letter of the new bonded entity in reference to this Application for Permit to Drill.

DESIGNATION OF OPERATOR

The undersigned is, on the records of the Bureau of Land Management, holder of lease

DISTRICT LAND OFFICE: Moab, Utah

SERIAL No.: U-46825

and hereby designates

NAME: Meridian Oil Inc.

ADDRESS: 5613 DTC Parkway
Englewood, Colorado 80111

as his operator and local agent, with full authority to act in his behalf in complying with the terms of the lease and regulations applicable thereto and on whom the supervisor or his representative may serve written or oral instructions in securing compliance with the Operating Regulations with respect to (describe acreage to which this designation is applicable):

T37S-R23E, S.L.M.

Section 14: W/2

320.00 acres, more or less
San Juan County, Utah

It is understood that this designation of operator does not relieve the lessee of responsibility for compliance with the terms of the lease and the Operating Regulations. It is also understood that this designation of operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated operator, the lessee will make full and prompt compliance with all regulations, lease terms, or orders of the Secretary of the Interior or his representative.

The lessee agrees promptly to notify the supervisor of any change in the designated operator.

Celeste C. Grynberg

Celeste C. Grynberg

(Signature of lessee)
5000 So. Quebec - Suite 500
Denver, Colorado 80237

November 17, 1986

(Date)

(Address)

AFFIDAVIT

STATE OF COLORADO)
) ss.
COUNTY OF ARAPAHOE)

TO WIT:

Now, this 21st day of November, 1986, comes the affiant herein, WILLIAM C. MITCHELL, being of lawful age and the first duly sworn, and does now depose and say:

THAT he is employed as a Landman with Meridian Oil Inc., and in said capacity is acquainted with the facts and allegations herein, and

THAT the plats attached hereto and made a part hereof as "Exhibit A" and "Exhibit B" are accurate to scale and reflects pertinent data required pursuant to oil & gas conservation rule No. 302.1,

Township 37 South, Range 23 East
Section 14: NW/4

THAT Meridian Oil Inc. and its partner, BWAB Inc., have secured the drilling rights from Celeste C. Grynberg under that certain farmout agreement effective November 11, 1986 along with a Designation of Operator form (attached), and thereby control the operating rights in the leasehold interest under the following described lands in San Juan County, Utah:

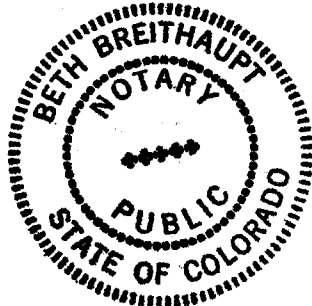
Township 37 South, Range 23 East
Section 14: NW/4

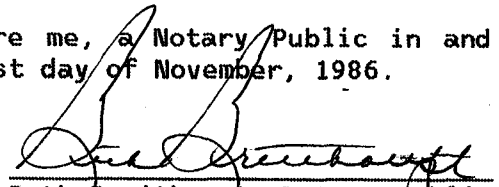
THAT no other parties are required to be notified in accordance with Rule number 302.1(a)(2) of the General Conservation Rules of the Utah Board of Oil, Gas and Mining.

Further affiant sayeth not.


William C. Mitchell

Taken, sworn and subscribed to before me, a Notary Public in and for the County and State afore said this 21st day of November, 1986.




Beth Breithaupt, Notary Public
5613 DTC Parkway
Englewood, CO 80111

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL
WELL ☒

GAS
WELL ☐

OTHER

SINGLE
ZONE ☒

MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

MERIDIAN OIL INC.

3. ADDRESS OF OPERATOR

P. O. Box 1855, Billings, MT 59103

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)

At surface

NENW (810' FNL - 1550' FWL)

At proposed prod. zone

NWNW (600' FNL - 1250' FWL)

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

15 miles northwest of Hatch Trading Post

15. DISTANCE FROM PROPOSED*
LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)

810'

16. NO. OF ACRES IN LEASE

1600

17. NO. OF ACRES ASSIGNED
TO THIS WELL

40

18. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

19. PROPOSED DEPTH

6200'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

5618' GL (graded)

22. APPROX. DATE WORK WILL START*

4th Quarter, 1986

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2	13-3/8	48#	80'	Redi-Mix to surface
11	8-5/8	24#	2,050'	Single stage. Cmt to sfc

RECEIVED
DEC 17 1986

DIVISION OF
OIL, GAS & MINING

CONFIDENTIAL

Thirteen Point Surface Use Plan

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

[Signature]

TITLE

Drilling Superintendent

DATE

12/10/86

(This space for Federal or State office use)

PERMIT NO.

4303731290

APPROVAL DATE

Kenneth V. Rhea

Acting DISTRICT MANAGER

DATE

DEC 12 1986

APPROVED BY

TITLE

CONDITIONS OF APPROVAL IF ANY:

FLARING OR VENTING OF
GAS IS SUBJECT OF NTL 4-A
DATED 1/1/80

CONDITIONS OF APPROVAL ATTACHED

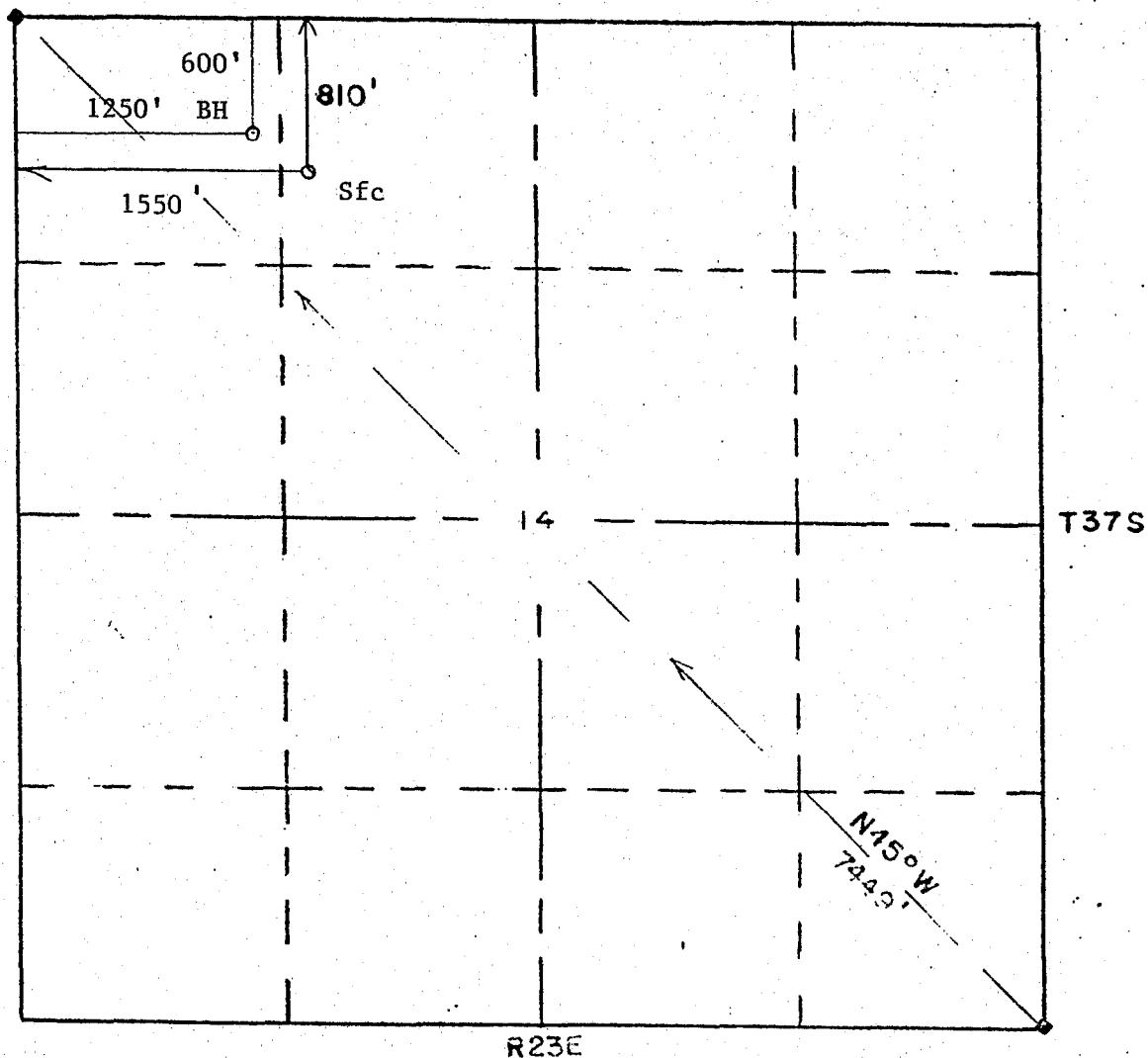
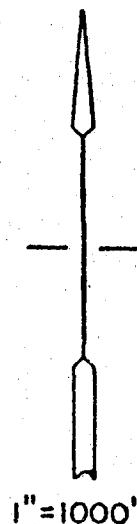
*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

State of Utah - Do not

SUBJECT TO RIGHT OF WAY
APPROVAL

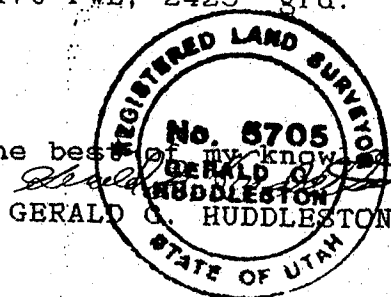
WELL LOCATION FLAT



WELL LOCATION DESCRIPTION:

Meridian Oil Cherokee Federal 11-14
 1550'FWL' & 810'FNL
 Section 14, T.37 S., R.23 E., SLM
 San Juan County, Utah
 5619' ground elevation
 Reference: 800'FNL & 1470'FWL, 2425' grd.
 30 Oct. 1985

The above is true to the best of my knowledge.



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*
(Other instructions on re-
verse side)

Form approved **010715**
Budget Bureau No. 1004-0135
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. <input checked="" type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER		5. LEASE DESIGNATION AND SERIAL NO. U-46825	
2. NAME OF OPERATOR MERIDIAN OIL INC.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME N/A	
3. ADDRESS OF OPERATOR P.O. Box 1855, Billings, MT 59103		7. UNIT AGREEMENT NAME N/A	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface NENW (810' FNL - 1550' FWL)		8. FARM OR LEASE NAME Cherokee-Federal	
14. PERMIT NO. ✓ 43-037-31290		9. WELL NO. 11-14	
15. ELEVATIONS (Show whether DP, RT, OR, etc.) 5630' KB		10. FIELD AND POOL, OR WILDCAT Cherokee (Wildcat)	
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Section 14-37S-23E	
		12. COUNTY OR PARISH San Juan	13. STATE Utah

RECEIVED
JAN 02 1987
DIVISION OF
OIL, GAS & MINING

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
(Other) <input type="checkbox"/>	

SUBSEQUENT REPORT OF:

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
(Other) <input checked="" type="checkbox"/> Spud Report	

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Aztec, Rig #301, spudded well @ 8:00 PM 12-26-86. Ran 52 jts 8-5/8", K-55 STC R-3 casing, set @ 2053'. Cement w/485 sx Class "B". Bumped plug w/1500 psi, float held 20 bbls return. Cement held up, no top job. Plug down @ 5:40 PM 12-28-86.

CONFIDENTIAL INFORMATION

With permit 9
18.

18. I hereby certify that the foregoing is true and correct

SIGNED

Suzanne S. Wilson

TITLE Sr. Operations Technician

DATE 12/29/86

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

*See Instructions on Reverse Side

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

010894 *Utah*
Form approved
Budget Bureau No. 1004-0135
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		7. UNIT AGREEMENT NAME N/A
2. NAME OF OPERATOR MERIDIAN OIL INC.		8. FARM OR LEASE NAME Cherokee-Federal
3. ADDRESS OF OPERATOR P. O. Box 1855, Billings, MT 59103		9. WELL NO. 11-14
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface NENW (810' FNL - 1550' FWL)		10. FIELD AND POOL, OR WILDCAT Cherokee (Wildcat)
14. PERMIT NO. 43-037-31290		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Section 14-37S-23E
15. ELEVATIONS (Show whether DF, RT, GR, etc.) 5630' KB		12. COUNTY OR PARISH San Juan
		13. STATE Utah

RECEIVED
JAN 05 1987
DIVISION OF
OIL, GAS & MINING

18. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) Progress Report-December, 86 <input checked="" type="checkbox"/>	

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Drilling ahead @ 3,970'.

CONFIDENTIAL INFORMATION

18. I hereby certify that the foregoing is true and correct

SIGNED *Suparna Wilson* TITLE Sr. Operations Technician DATE 1/2/87

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

021803
file Dull
#21637

FILING FOR WATER IN THE STATE OF UTAH

APPLICATION TO APPROPRIATE WATER

Rec. by SA
Fee Paid \$ 15.00
Platted _____
Microfilmed _____
Roll # _____

For the purpose of acquiring the right to use a portion of the unappropriated water of the State of Utah, application is hereby made to the State Engineer, based upon the following showing of facts, submitted in accordance with the requirements of the Laws of Utah.

WATER USER CLAIM NO. 09 - 1497

APPLICATION NO. T62234

1. PRIORITY OF RIGHT: January 7, 1987

FILING DATE: January 7, 1987

2. OWNER INFORMATION

Name: Meridian Oil Inc.

Address: P.O. Box 1855, Billings, MT 59103

The land is not owned by the applicant(s), see explanatory.

3. QUANTITY OF WATER: 3.0 acre feet (Ac. Ft.)

4. SOURCE: Montezuma Creek & Underground Well DRAINAGE: San Juan River

POINT(S) OF DIVERSION:

COUNTY: San Juan

(1) N. 798 feet, E. 1876 feet, from the SW Corner of Section 28,
Township 38 S, Range 25 E, SLB&M

Description of Diverting Works: Inch diameter well.

(2) N. 250 feet, W. 1385 feet, from the SE Corner of Section 06,
Township 39 S, Range 25 E, SLB&M

Source: Montezuma Creek

Description of Diverting Works: Water trucks

COMMON DESCRIPTION: 2 & 5 mi. NE Hatch Trading Post

5. NATURE AND PERIOD OF USE

Oil Exploration From December 26 to February 10.

6. PURPOSE AND EXTENT OF USE

Oil Exploratio: Oil Well Drilling

7. PLACE OF USE

The water is used in all or parts of each of the following legal subdivisions.

TOWN	RANGE	SEC	North East Quarter				North West Quarter				South West Quarter				South East Quarter			
			NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$
37 S	23 E	14					X											

All locations in Salt Lake Base and Meridian

EXPLANATORY

This water is being submitted to secure use of the water sources mentioned for the purpose of drilling the 11-14 Cherokee-Federal Well in Sec. 14, T37S, R23E, SLB&M. The water will be used in the well and mixed with well drilling fluid materials.

The point of diversion for the 11-14 Cherokee-Federal Well is as follows:

S. 810 ft. & E. 1550 ft. from NW Cor. Sec. 14, T37S, R23E, SLB&M.

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FEB 13 1987

DIVISION OF
OIL, GAS & MINING

Appropriate

The applicant hereby acknowledges he/they are a citizen(s) of the
United States or intends to become such a citizen.

The quantity of water sought to be appropriated is limited to that which
can be beneficially used for the purpose herein described.

The undersigned hereby acknowledges that even though he/they may have been assisted in
the preparation of the above-numbered application through the courtesy of the employees
of the Division of Water Rights, all responsibility for the accuracy of the information
contained therein, at the time of filing, rests with the applicant(s).

Signature of Applicant

Contractor Aztec Drilling
 Rig No. #301
 Spot --
 Sec. 17
 Twp. 37S
 Rng. 23E
 Field Wildcat
 County San Juan
 State Utah
 Elevation 5630 ft
 Formation Ismay

Top Choke $\frac{1}{2}$ "
 Bottom Choke $\frac{3}{4}$ "
 Size Hole $7 \frac{7}{8}$ "
 Size Rat Hole --
 Size & Wt. D. P. $4 \frac{1}{2}$ " XH 16.60#
 Size Wt. Pipe --
 I. D. of D. C. $2 \frac{1}{4}$ "
 Length of D. C. 479 ft
 Total Depth 5930 ft
 Interval Tested 5860-5930 ft
 Type of Test Bottom Hole
Conventional

Flow No. 1 15 Min.
 Shut-in No. 1 60 Min.
 Flow No. 2 90 Min.
 Shut-in No. 2 180 Min.
 Flow No. 3 -- Min.
 Shut-in No. 3 -- Min.
 Bottom Hole Temp. 138⁰F
 Mud Weight 9.1
 Gravity --
 Viscosity 34

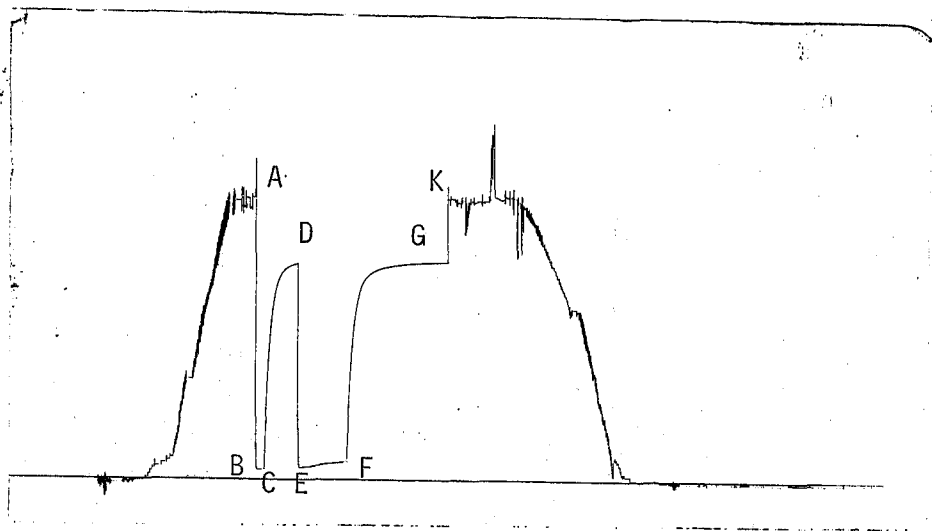
Tool opened @ 11:40 am

Inside Recorder

PRD Make Kuster K-3
 No. 24645 Cap. 4450 @ 5900'

	Press	Corrected
Initial Hydrostatic	A	2757
Final Hydrostatic	K	2743
Initial Flow	B	130
Final Initial Flow	C	132
Initial Shut-in	D	2118
Second Initial Flow	E	150
Second Final Flow	F	203
Second Shut-in	G	2137
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--

Lynes Dist. Farmington, NM
 Our Tester David Dolyniuk
 Witnessed By Charlie Dean



Did Well Flow -- Gas Yes Oil No Water No Test was reverse circulated
 RECOVERY IN PIPE:

Blow Description:

1st flow: Tool opened with a 3" blow increased to 28 psi at the end of the flow.

2nd flow: Tool opened with a strong blow with gas to surface in 2 minutes see gas volume report.

Comments:

The test results indicate a mechanically successful test. The flow and shut-in curves suggest low permeability within the zone tested.

Operator
 Address
 Meridian Oil, Inc.
 175 North 27th Street
 Billings, MT 59101

Well Name and No.
 Ticket No.
 #11-14 Cherokee Federal
 21209

Date
 1-9-87

DST No.
 No. Final Copies
 1
 9

DST#: 1

#11-14 CHEROKEE FEDERAL

5860 - 5930ft.

Location: 17-37S-23E

Recorder Number: 24645

Test Type: BOTTOM HOLE CONVENTIONAL

Recorder Depth: 5900 ft.

Formation: ISMAY

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P psi	PRESSURE (T+dt)/dt psi	ABSCISSA	PRESSURE SQUARED psi ² /10 ⁶
A	INITIAL HYDROSTATIC	0.00		2757.0		
B	START OF 1st FLOW	0.00		130.0		
C	END OF 1st FLOW	15.00		132.0		
	1st SHUTIN PERIOD	0.00	0.0	132.0	0.0000	0.0000
		5.00	859.0	991.0	4.0000	.9821
		10.00	1339.0	1471.0	2.5000	2.1638
		15.00	1581.0	1713.0	2.0000	2.9344
		20.00	1738.0	1870.0	1.7500	3.4969
		25.00	1827.0	1959.0	1.6000	3.8377
		30.00	1885.0	2017.0	1.5000	4.0683
		35.00	1924.0	2056.0	1.4286	4.2271
		40.00	1947.0	2079.0	1.3750	4.3222
		45.00	1962.0	2094.0	1.3333	4.3848
		50.00	1973.0	2105.0	1.3000	4.4310
		55.00	1983.0	2115.0	1.2727	4.4732
D	END OF 1st SHUTIN	60.00	1986.0	2118.0	1.2500	4.4859
E	START OF 2nd FLOW	0.00		150.0		
F	END OF 2nd FLOW	90.00		203.0		
	2nd SHUTIN PERIOD	0.00	0.0	203.0	0.0000	4.4859
		5.00	743.0	946.0	22.0000	.8949
		10.00	1182.0	1385.0	11.5000	1.9182
		15.00	1445.0	1648.0	8.0000	2.7159
		20.00	1593.0	1796.0	6.2500	3.2256
		25.00	1693.0	1896.0	5.2000	3.5948
		30.00	1753.0	1956.0	4.5000	3.8259
		35.00	1788.0	1991.0	4.0000	3.9641
		40.00	1816.0	2019.0	3.6250	4.0764
		45.00	1833.0	2036.0	3.3333	4.1453
		50.00	1848.0	2051.0	3.1000	4.2066
		55.00	1861.0	2064.0	2.9091	4.2601
		60.00	1870.0	2073.0	2.7500	4.2973
		65.00	1878.0	2081.0	2.6154	4.3306
		70.00	1883.0	2086.0	2.5000	4.3514
		75.00	1889.0	2092.0	2.4000	4.3765
		80.00	1895.0	2098.0	2.3125	4.4016
		85.00	1900.0	2103.0	2.2353	4.4226
		90.00	1904.0	2107.0	2.1667	4.4394

MERIDIAN OIL INC.
DST#: 1
#11-14 CHEROKEE FEDERAL
5860 - 5930ft.

Page 2

Location: 17-37S-23E
Test Type: BOTTOM HOLE CONVENTIONAL
Formation: ISMAY

Recorder Number: 24645
Recorder Depth: 5900 ft.

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P psi	PRESSURE (T+dt)/dt psi	ABSCISSA	PRESSURE SQUARED psi ² /10 ⁶
		95.00	1908.0	2111.0	2.1053	4.4563
		100.00	1912.0	2115.0	2.0500	4.4732
		105.00	1915.0	2118.0	2.0000	4.4859
		110.00	1919.0	2122.0	1.9545	4.5029
		115.00	1921.0	2124.0	1.9130	4.5114
		120.00	1923.0	2126.0	1.8750	4.5199
		125.00	1925.0	2128.0	1.8400	4.5284
		130.00	1925.0	2128.0	1.8077	4.5284
		135.00	1927.0	2130.0	1.7778	4.5369
		140.00	1929.0	2132.0	1.7500	4.5454
		145.00	1930.0	2133.0	1.7241*	4.5497
		150.00	1930.0	2133.0	1.7000*	4.5497
		155.00	1932.0	2135.0	1.6774*	4.5582
		160.00	1932.0	2135.0	1.6563*	4.5582
		165.00	1934.0	2137.0	1.6364*	4.5668
		170.00	1934.0	2137.0	1.6176*	4.5668
		175.00	1934.0	2137.0	1.6000*	4.5668
G	END OF 2nd SHUTIN	180.00	1934.0	2137.0	1.5833*	4.5668
Q	FINAL HYDROSTATIC	0.00		2743.0		

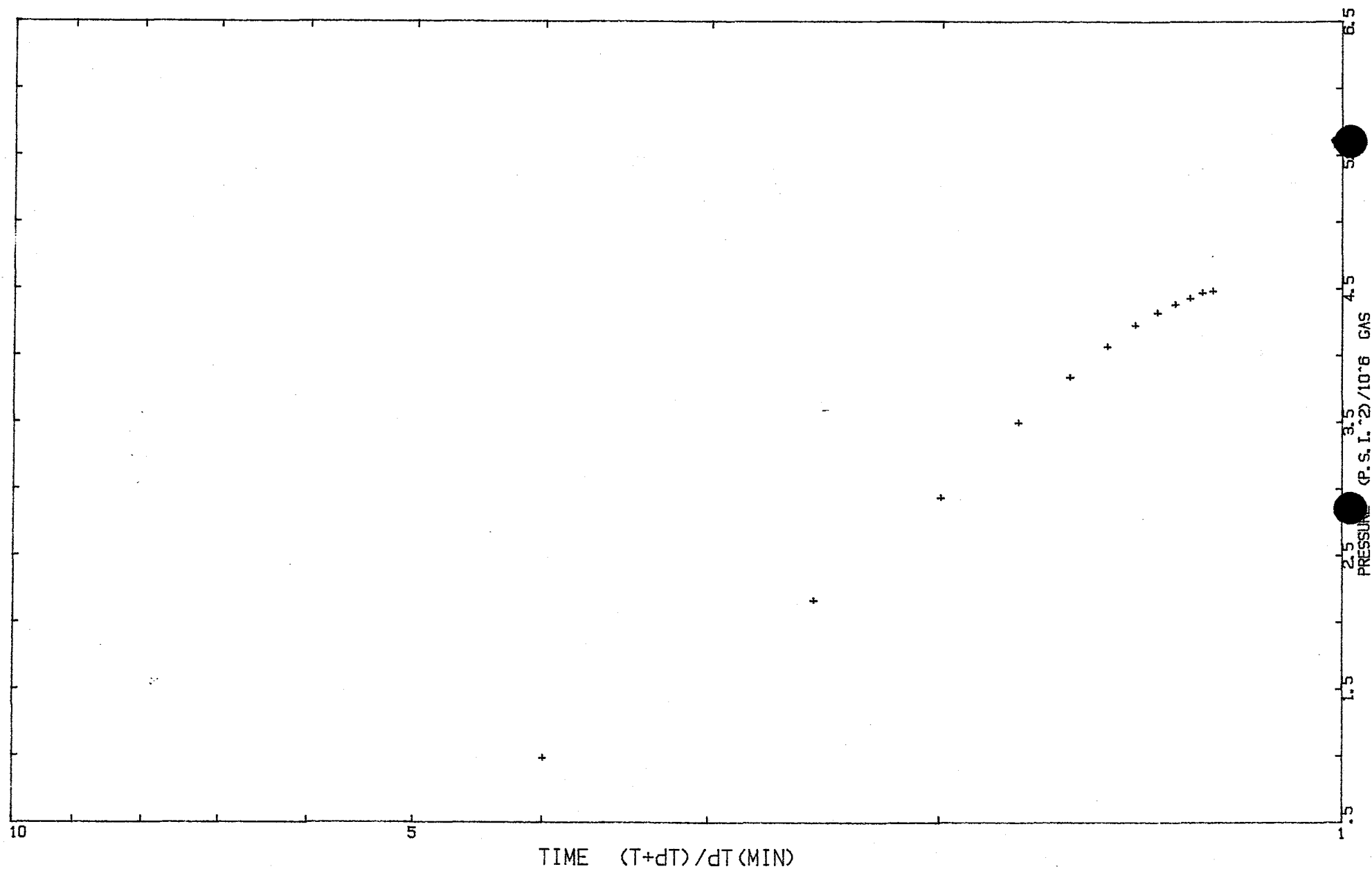
* VALUES USED FOR EXTRAPOLATIONS

2nd SHUT-IN
HORNER EXTRAPOLATION 2167.17 PSI
HORNER SLOPE .63 (psi²/10⁶)/cycle

OPERATOR: MERIDIAN OIL INC.
WELL NAME: #11-14 CHEROKEE FEDERAL
LOCATION: 17-37S-23E
FIRST SHUT-IN
RECORDER: 24645

DST #: 1

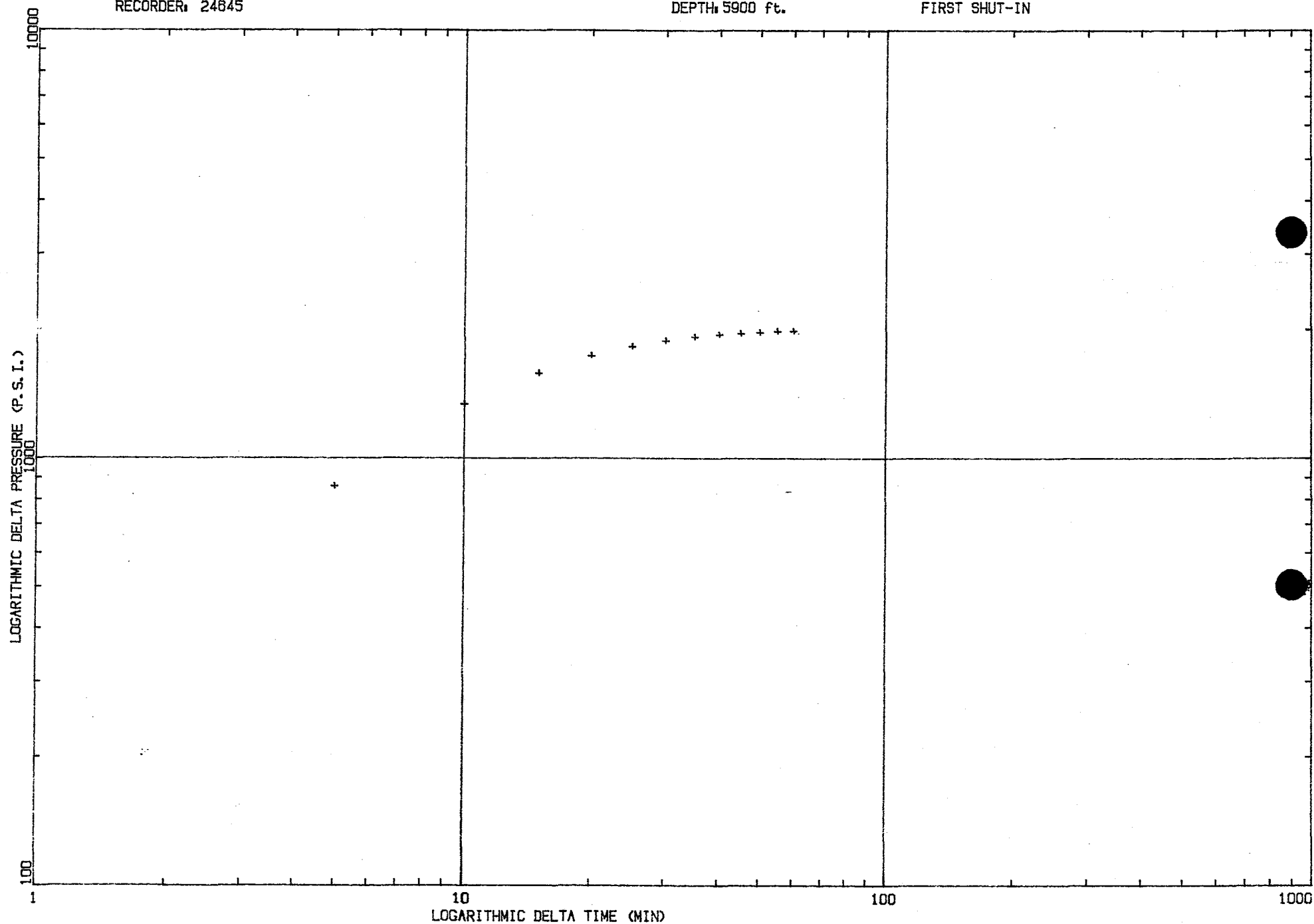
DEPTH: 5900 ft.



OPERATOR: MERIDIAN OIL INC.
LOCATION: 17-37S-29E
RECORDER: 24845

WELL NAME: #11-14 CHEROKEE FEDERAL
DST #: 1
DEPTH: 5900 ft.

FIRST SHUT-IN



OPERATOR: MERIDIAN OIL INC.

WELL NAME: #11-14 CHEROKEE FEDERAL

LOCATION: 17-37S-23E

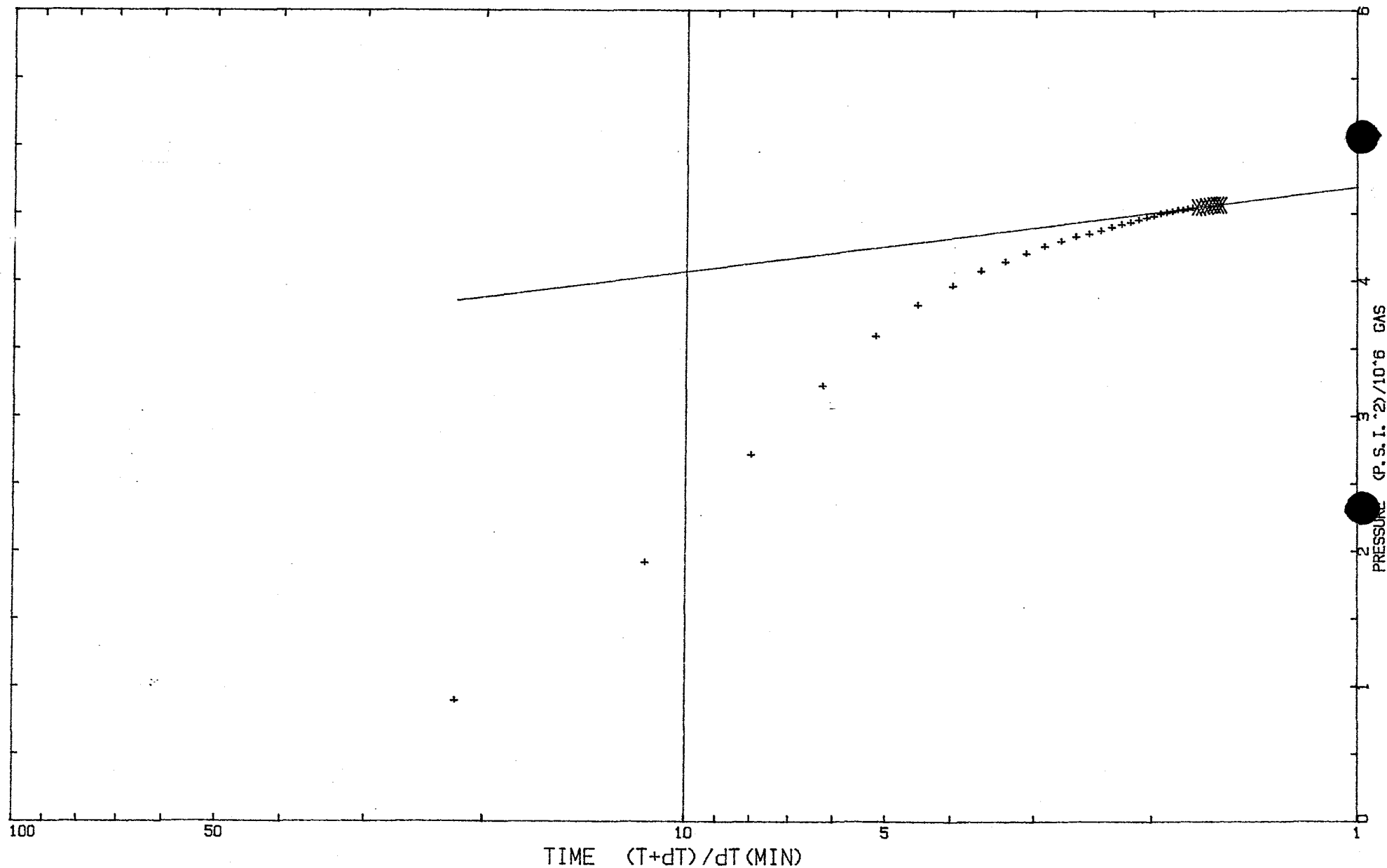
DST #: 1

SECOND SHUT-IN

RECORDER: 24645

DEPTH: 5900 ft.

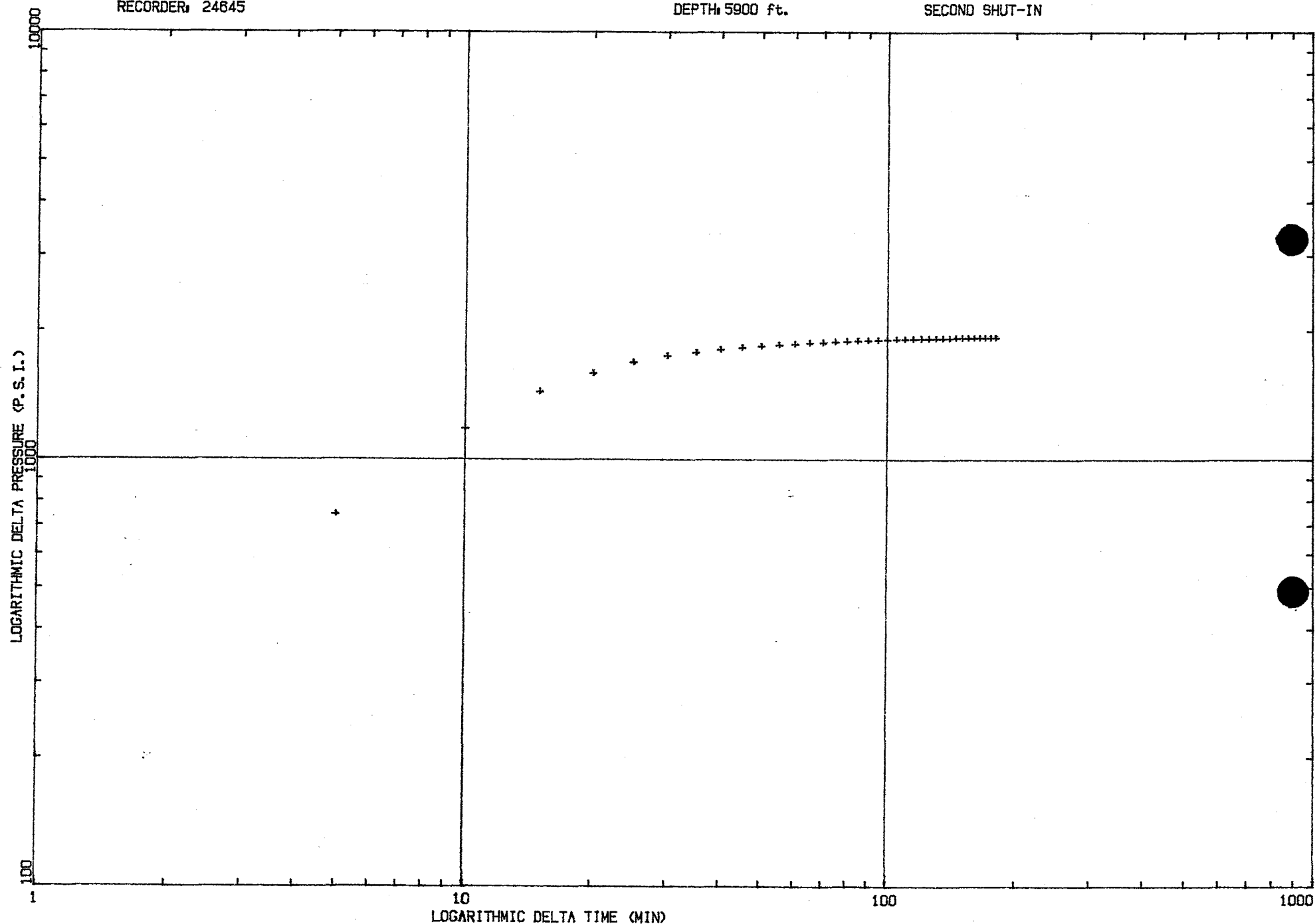
EXTRAPOLATED PRESSURE: 2167.166 P.S.I. SLOPE: .627 (P.S.I.^2/10^6)/CYCLE



OPERATOR: MERIDIAN OIL INC.
LOCATION: 17-37S-23E
RECORDER: 24845

WELL NAME: #11-14 CHEROKEE FEDERAL
DST #: 1
DEPTH: 5900 ft.

SECOND SHUT-IN



MERIDIAN OIL INC.
DST#: 1
#11-14 CHEROKEE FEDERAL
5860 - 5930ft.

Page 3

Location: 17-37S-23E
Test Type: BOTTOM HOLE CONVENTIONAL
Formation: ISMAY

Recorder Number: 24645
Recorder Depth: 5900 ft.

SAMPLE DATA

SAMPLE CHAMBER:

Capacity of sample chamber	2100	cc
Volume of sample.....	1000	cc
Pressure in sampler.....	900	psig
Where sampler was drained...	on location	

Sampler contained:

Mud	1000	cc	emmulsion
Gas	2.6	cu-ft	

RESISTIVITY DATA:

Top.....	6500 PPM NACL
Middle.....	6500 PPM NACL
Bottom.....	
Sampler.....	6500 PPM NACL
Mud pit.....	4800 PPM NACL
Make-up Water...	3200 PPM NACL

MERIDIAN OIL INC.
DST#: 1
#11-14 CHEROKEE FEDERAL
5860 - 5930ft.

Page 4

GAS MEASUREMENTS

Device: FLOOR MANIFOLD

Riser: 0.0 in.

Bomb #:
Sent to:

FLOW #	TIME (min)	READING(psi)	CHOKE (in)	Mcf/d
2	2	32.0	.250	69.2
2	5	48.0	.250	92.8
2	10	50.0	.250	95.7
2	15	60.0	.250	110.5
2	20	65.0	.250	117.8
2	25	70.0	.250	125.2
2	30	73.0	.250	129.6
2	35	76.0	.250	134.0
2	40	80.0	.250	140.0
2	45	82.0	.250	142.9
2	50	85.0	.250	147.2
2	55	89.0	.250	153.1
2	60	91.0	.250	156.1
2	65	93.0	.250	159.0
2	70	96.0	.250	163.5
2	75	98.0	.250	166.4
2	80	99.0	.250	167.9
2	85	100.0	.250	169.4
2	90	100.0	.250	169.4

MERIDIAN OIL INC.
DST#: 1
#11-14 CHEROKEE FEDERAL
5860 - 5930ft.

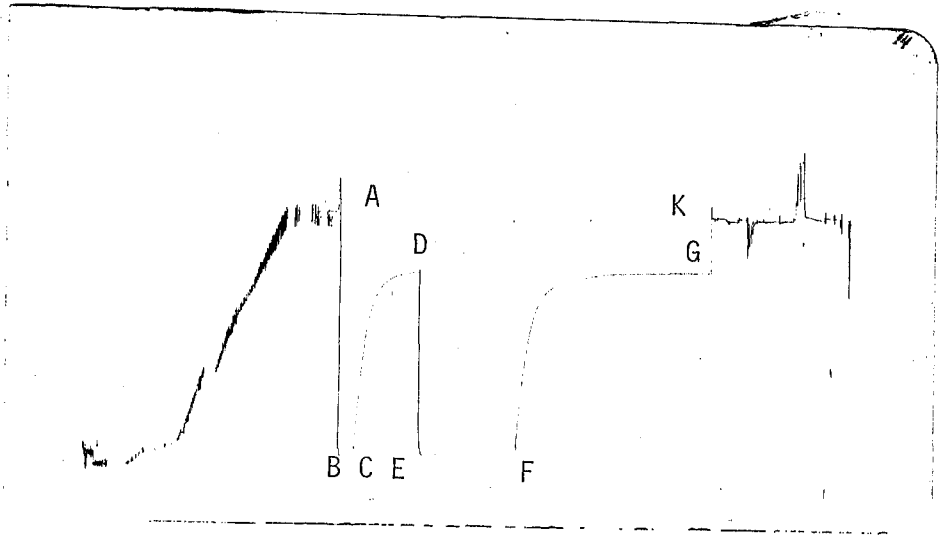
Page 5

PRESSURE RECORDER NUMBER : 7661

DEPTH : 5845.00ft. LOCATION : INSIDE
TYPE : K-3 CAPACITY : 4900.00psi

PRESSURE
psi

A)Initial Hydro : 2751.0
B)1st Flow Start: 129.0
C)1st Flow End : 129.0
D)END 1st Shutin: 2108.0
E)2nd Flow Start: 154.0
F)2nd Flow End : 225.0
G)END 2nd Shutin: 2135.0
Q)Final Hydro. : 2731.0



TEST TIMES(MIN)
1st FLOW : 15
SHUTIN: 60
2nd FLOW : 90
SHUTIN: 180

STATE ENGINEER'S ENDORSEMENT


WATER RIGHT NUMBER: 09 - 1497

APPLICATION NO. T62234

1. January 7, 1987 Application received by MP.
 2. January 9, 1987 Application designated for APPROVAL by MP and SG.
 3. Comments:
-
-

Conditions:

This application is hereby APPROVED, dated January 30, 1987, subject to prior rights and this application will expire on March 30, 1987.


Robert L. Morgan P.E.
State Engineer

MERIDIAN OIL, INC.
11-14 CHEROKEE FEDERAL
SECTION 15, T37S, R23E
SAN JUAN COUNTY - UTAH

GEOLOGIC REPORT
BY
BILL NAGEL
ROCKY MOUNTAIN GEO-ENGINEERING COMPANY

CONFIDENTIAL

WELL SUMMARY

OPERATOR: MERIDIAN OIL, INC.
WELL NAME: 11-14 CHEROKEE FEDERAL
SURFACE LOCATION: SECTION 14, T37S, R23E
810' FNL, 1558' FWL
TARGET LOCATION: 600' FNL, 1250' FWL
BOTTOM HOLE LOCATION: 561' FNL, 1184' FWL
COUNTY: SAN JUAN
STATE: UTAH
ELEVATION: 5618' GL - 5630' KB
SPUD DATE: 12/26/86
COMPLETION DATE: 1/11/86
HOLE SIZE: 11" TO 2053'; 7 7/8" TO T.D.
CASING RECORD: 8 5/8" TO 2953'
DRILLING ENGINEER: JIMMY READER/CHARLIE BYERLY
WELLSITE GEOLOGY: ROCKY MOUNTAIN GEO-ENGINEERING COMPANY
WELLSITE GEOLOGIST: BILL NAGEL
DRILLING CONTRACTOR: AZTEC #301
TOOL PUSHER: BUDDY DAVIS, CHUCK HUSSER
MUD COMPANY: IMCO
MUD ENGINEER: BOB ROBERTS
DRILL STEM TESTING: LYONS
DIRECTIONAL DRILLING: DATADRILL
ENGINEER: TIM BASEFLUG
ELECTRIC LOGGING: SCHLUMBERGER
TYPE OF LOGS RUN: DLL-MSFL, FDC-CNL, BHC, SHDT
OBJECTIVES: ISMAY & DESERT CREEK
TOTAL DEPTH: 6232'
STATUS: RUN PRODUCTION CASING

MERIDIAN OIL, INC.
 11-14 CHEROKEE FED.
 SEC. 14, T37S, R23E
 SAN JUAN CO. - UTAH

WELL CHRONOLOGY

DATE & # DAYS	MDNT DEPTH	FTG/ DAY	DAILY OPERATIONS
12/26/86 (1)	-0-	143	DRLG RAT & MOUSE HOLE - DRLG SURFACE
12/27/86 (2)	143	1717	DRLG
12/28/86 (3)	1860	193	DRLG - CIRC - POOH - RUN MULTSHOT - RUN CSG - CEM - WOC - NIP UP
12/29/86 (4)	2053	838	NIPPLE UP - PRESS TEST - DRL CEM - DRLG
12/30/86 (5)	2891	1012	DRLG
12/31/86 (6)	3903	200	DRLG - POOH - RIH W/MUD MOTOR - SURV TO BOT - DRLG W/MUD MTR - POOH
1/1/87 (7)	4103	173	POOH - LAY DN MUD MTR - RIH & REAM TO BOT - DRLG - POOH
1/2/87 (8)	4276	130	RIH & WASH TO BOT - POOH - CHG MTR - RIH & DRL - POOH & CHG BIT - RIG & DRL AHEAD
1/3/87 (9)	4405	286	DRLG - POOH & LAY DN MUD MTR - RIH & DRL AHEAD
1/4/87 (10)	4691	285	DRLG - POOH & CHG REAMERS - RIH & WO WELDERS - REPAIR DIVING BOARD - RIH & DRL AHEAD
1/5/87 (11)	4976	263	DRLG - REPAIR RIG - DRLG - POOH & CHG BHA - CUT DRL LINE - RIH & DRL AHEAD
1/6/87 (12)	5239	293	DRLG - POOH & CHG BHA & BIT - RIH
1/7/87 (13)	5532	284	RIH & DRL - CIRC - DRL AHEAD
1/8/87 (14)	5816	70	DRLG - CIRC - DRLG - CIRC - POOH - RIH - FIX DRIVE LINE - RIH - CIRC - DRLG AHEAD
1/9/87 (15)	5886	44	DRLG - CIRC - POOH - RIH W/DST - RUN DST - POOH
1/10/87 (16)	5930	302	LAY DN DST - CIRC - DRLG AHEAD
1/11/87 (17)	6232	-0-	CIRC - POOH - RIG UP LOGGERS - RUN LOGS - RIG DN LOGGERS - RIH - CIRC - POOH

BIT RECORD

WELL NAME: 11-14 CHEROKEE FED. ELEVATION: GL 5618 - KB 5630
CO. NAME: MERIDIAN OIL SECTION: 15 - 37S - 23E
CONTRACTOR: AZTEC RIG# 301 CO. & STATE: SAN JUAN, UT
SPUD DATE: 12/26/86 T.D. DATE: 1/11/87

[illegible]

COMPANY NAME: MERIDIAN OIL COUNTY: SAN JUAN
 WELL NAME: 11-14 CHEROKEE FED. STATE: UTAH

DEPTH	DEV.	DIR.	DEPTH	DEV.	DIR.	DEPTH	DEV.	DIR.
3093	1 $\frac{1}{4}$ ⁰	N89E	5419	16	N52W			
3405	$\frac{1}{2}$	N89E	5484	17 $\frac{1}{4}$	N52W			
3632	$\frac{1}{2}$	N42W	5583	18 $\frac{3}{4}$	N55W			
3928	$\frac{1}{2}$	N42W	5643	"	N54W			
3967	1	N40W	5829	20 $\frac{3}{4}$	N54W			
3998	1	S75W						
4030	2	S69W						
4058	3 $\frac{1}{2}$	S68W						
4088	4	N86W						
4119	4 $\frac{3}{4}$	N82W						
4150	5 $\frac{1}{4}$	N77W						
4212	6 $\frac{3}{4}$	N78W						
4243	7 $\frac{1}{2}$	N81W						
4274	8 $\frac{1}{4}$	N83W						
4305	9	N76W						
4335	9 $\frac{3}{4}$	N67W						
4367	10	N59W						
4460?	10 $\frac{1}{2}$	N58W						
4558	10	N57W						
4651	9 $\frac{1}{4}$	N56W						
4743	9	N52W						
4831	9	N54W						
4923	9 $\frac{1}{4}$	N53W						
4986	9 $\frac{3}{4}$	N52W						
5077	10 $\frac{3}{4}$	N48W						
5140	11 $\frac{3}{4}$	N49W						
5231	13 $\frac{1}{4}$	N47W						

MERIDIAN OIL, INC.
 11-14 CHEROKEE FED.
 SEC. 15, T37S, R23E
 SAN JUAN CO. - UTAH

SAMPLE DESCRIPTIONS

3300-3310	70%	SH red ltgrn sft-frm blk-pty occ slty
	30%	SLTST red sft-frm blk varg
3310-3320	60%	SH AA
	40%	SLTST red sft-frm blk v arg occ slsdy
3320-3330	60%	SH red ltgrn ltgy sft-frm blk-pty occ slty
	30%	SLTST AA
	10%	SS clr vfg uncons msrt sbang-sbrd
3330-3340	60%	SH AA
	40%	SLTST red sft-frm blk varg occ slsdy calc
3340-3350	60%	SH AA
	30%	SLTST
	10%	SS clr vfg uncons m-wsrt sbang-sbrd
3350-3360	70%	SH red grn sft-frm blk-pty occ slty
	30%	SLTST AA
3360-3370	60%	SH AA
	30%	SLTST AA
	10%	SS clr vfg uncons occ mcmt msrt sbang-sbrd
3370-3380	50%	SH AA
	30%	SLTST red sft-frm blk arg calc
	20%	SS AA
3380-3390	50%	SH red ltgy ltgrn sft-frm blk-pty occ slty
	40%	SLTST AA
	10%	SS AA
3390-3400	50%	SLTST AA
	40%	SH AA
	10%	SS clr vfg uncons msrt-wsrt sbang-sbrd
3400-3410	50%	SH red occ ltgrn frm-sft blk-pty occ slty
	40%	SLTST red sft-frm blk arg calc
	10%	SS AA
3410-3420	50%	SH AA
	40%	SLTST red sft-frm blk-pty calc
	10%	SS AA
3420-3430	50%	SLTST AA
	40%	SH AA
	10%	SS clr vfg uncons occ mcmt msrt sbang-sbrd
3430-3440	40%	SLTST AA
	40%	SH red occ grn ltgy sft-frm blk-pty occ slty
	20%	SS AA
3440-3450	50%	SLTST red sft-frm blk-pty calc

MERIDIAN OIL, INC.
11-14 CHEROKEE FEDERAL
SAMPLE DESCRIPTIONS CONT.

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	40%	SH AA
	10%	SS AA
3450-3460	50%	SH AA
	40%	SLTST AA
	10%	SS clr vfg uncons occ mcmt msrt sbang-sbrd
3460-3470	60%	SH red occ grn sft-frm blk-pty occ slty
	30%	SLTST AA
	10%	SS AA
3470-3480	60%	SH AA
	30%	SLTST red sft-frm blk-pty occ sdy calc
	10%	SS AA
3480-3490	50%	SH red rdbn sft-slfrm pty-blk occ slty
	45%	SLTST red sft-frm blk ip sm sdy
	5%	SS AA
3490-3500	60%	SH red orng sft-slfrm pty-blk slty
	35%	SLTST AA
	5%	SS AA
3500-3510	50%	SH AA
	45%	SLTST AA
	5%	SS clr vfg mcmt-uncons1 msrt sbrd
3510-3520	65%	SH red rdbn grn sft-frm blk-pty slsly
	30%	SLTST AA
	10%	SS AA
	TR	LS dkgy blk mcx1 arg
3520-3530	70%	SH AA
	20%	SLTST rdbn sft-slfrm blk-pty calc
	10%	SS AA
3530-3540	65%	SH AA
	30%	SLTST AA
	5%	SS clr f-vfgpred uncons1 msrt sbrd
3540-3550		NS (+10' PIPE TALLY CORR @ 3544')
3550-3560	45%	SLTST rd rdbn slfrm-frm blk-pty calc
	40%	SH rd ltgrn slfrm pty-blk slsly
	10%	SS AA
	5%	LS ltgy-dkgy mcx1 blk arg
3560-3570	50%	SH AA sm mbrn
	45%	SLTST AA
	5%	SS AA
3570-3580	65%	SH rd-rdbn-brn sft-frm pty-blk slsly
	25%	SLTST AA
	10%	SS AA
3580-3590	70%	SH AA
	25%	SLTST AA
	5%	SS clr f-vfg uncons sbrd-rdd

MERIDIAN OIL, INC.
 11-14 CHEROKEE FEDERAL
SAMPLE DESCRIPTION CONT.

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3590-3600	55% SH AA 40% SLTST rdbrn-rd-dkbrn sft-slfrm blkyl-pty calc 5% SS AA
3600-3610	60% SLTST AA 40% SH dkrd-rdbrn sft-frm blkyl-pty slsly
3610-3620	50% SH AA 50% SLTST rd-rdbrn sft-slfrm blkyl-pty slsdy calc
3620-3630	65% SH dkrd-ltgy-gybrn sft-frm pty-blky slsly 35% SLTST AA TR SS clr vfg uncons sbrd-rdd
3630-3640	60% SH dkrd-rdbrn slfrm-frm blkyl-pty calc 40% SLTST dkbrn-rdbrn sft-slfrm blkyl-pty slcalc-calc
3640-3650	70% SH AA 30% SLTST dkbrn rdbrn sft-slfrm blkyl-pty calc
3650-3660	65% SH rdbrn ltgy sft-frm pty-blky slsly 35% SLTST AA TR SS AA
3660-3670	70% SH rdrd ltgy-gygrn lav slfrm-frm sm slsly 30% SLTST AA
3670-3680	60% SH AA 40% SLTST dkbrn-rdbrn frm blkyl-pty calc
3680-3690	50% SH AA 40% SLTST AA 10% SS clr f-vfg uncons-pcmt msrt sbrd-rdd
3690-3700	50% SH rdbrn ltgy-gygrn frm blkyl-pty slsly-smth 45% SLTST dkbrn-rdbrn frm blkyl sm sdy calc 5% SS AA
3700-3710	70% SH AA sm lav 30% SLTST AA
3710-3720	65% SH AA 35% SLTST mbrn-rdbrn slfrm-frm pty-blky calc
3720-3730	50% SLTST dkrd-rdbrn slfrm-frm blkyl slsdy 45% SH AA 5% SS AA
3730-3740	60% SLTST AA 40% SH dkrd-rdbrn ltgrn lav frm pty-blky slsly TR SS clr f-vfg uncons sbrd-rdd
3740-3750	65% SLTST dkrd-rdbrn slfrm-frm blkyl-pty slsdy 35% SH AA
3750-3760	50% SH rdbrn ltgy sm grn slfrm-frm pty-blky 45% SLTST AA

MERIDIAN OIL, INC.
 11-14 CHEROKEE FEDERAL
SAMPLE DESCRIPTION CONTINUED

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3760-3770	55% SH AA 40% SLTST rdbn slfrm-frm plty ip slsdy calc 5% SS AA
3770-3780	50% SLTST AA 45% SH AA 5% SS clr ltgy vfg mcmt m-wsrt sbang-sbrd slcalc
3780-3790	55% SLTST dkrd-rdbn slfrm-frm blk slsdy 45% SH AA TR SS AA
3790-3800	55% SLTST rdbn-rdorg slfrm-frm blk grdg to slty SH 40% SH dkbrn-rdorg slfrm-frm blk-plty slty ip 5% SS AA
3800-3810	55% SH AA 35% SLTST AA 10% SS clr vfg mcmt wsrt sbang-sbrd cln
3810-3820	50% SH dkrd-rdbn ltgy ltgrn sm lav frm blk-plty 45% SLTST AA 5% SS AA
3820-3830	55% SH AA 35% SLTST AA 10% SS clr vfg pred uncons sbrd-rdd
3830-3840	60% SH AA 30% SLTST rd-rdorg slfrm-frm blk slsdy calc 10% SS AA
3840-3850	55% SH dkbrn-rdbn-rd slfrm-frm plty-blk slsly 40% SLTST AA 5% SS AA
3850-3860	50% SH ltgy ltgrn lav rdbn plty ip smth-slsly 45% SLTST AA sm dkbrn 5% SS AA
3860-3870	55% SH AA 45% SLTST TR SS clr vfg uncons-pcmt wsrt cln sbrd-rdd
3870-3880	45% SH AA 35% SLTST AA 20% SS org vfg mcmt msrt fri slty ip slcalc
3880-3890	50% SLTST rdbn-rdorg slfrm plty-blk calc 35% SH AA 15% SS AA
3890-3900	45% SLTST rdbn-rdorg slfrm plty-blk calc 35% SH rdorg ltgy plty-blk smth-slsly slcalc-calc 20% SS org clr f-vfg mcmt-uncons msrt slsly-cln

MERIDIAN OIL, INC.
11-14 CHEROKEE FEDERAL
SAMPLE DESCRIPTION CONT.

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3900-3910	50%	SH AA
	45%	SLTST dkbrn red frm blkyl-pty sm slsdy
	5%	SS AA
3910-3920	60%	SH rdbrn rdorng pty slty ip
	35%	SLTST AA
	5%	SS AA
3920-3930	50%	SH AA
	45%	SLTST dkbrn rdorng blkyl-pty slsdy
	5%	SS AA
3920-3940	50%	SH rdbrn-rd pty occ blkyl slty ip occ calc
	40%	SLTST AA
	10%	SS AA
	TR	LS rd pty frm mcxl varg
3940-3950	60%	SH AA
	40%	SLTST rdbrn-dkbrn blkyl-pty occ slsdy calc
3950-3960	60%	SH AA
	30%	SLTST AA
	10%	SS clr vfg uncons occ mcmt wsrt sbrd
3960-3970	55%	SH rdbrn-brn ltgrn frm pty-blkyl slty sm calc
	30%	SLTST AA
	15%	SS tan-ltorng-clr f-vfg mcmt-uncons wsrt-sbrd
3970-3980	60%	SH AA
	30%	SLTST rdbrn ltgrn frm blkyl slsdy occ calc
	10%	SS AA
3980-3990	50%	SH AA
	30%	SLTST AA
	20%	SS tan ltorng fg mcmt wsrt calc slsly sbrd
3990-4000	45%	SH rd-rdbrn-ltbrn blkyl-pty slty ip
	45%	SLTST AA
	10%	SS AA
4000-4010	60%	SH AA
	35%	SLTST dkbrn red frm blkyl ip slsdy calc
	5%	SS ofwh clr vfg wcmt wsrt calc sbang-sbrd
4010-4020	55%	SH rd-rdbrn ltgrn frm blkyl-pty slsly
	40%	SLTST AA
	5%	SS AA
4020-4030	50%	SLTST rdbrn-dkbrn frm blkyl ip sm slsdy
	40%	SH AA
	10%	SS clr ofwh vfg wcmt wsrt cln sbang-sbrd
4030-4040	50%	SLTST AA
	45%	SH rd-dkbrn ltgy-gygrn frm blkyl-pty slsly
	5%	SS AA
4040-4050	50%	SH AA Incr ltgy

MERIDIAN OIL, INC.
11-14 CHEROKEE FEDERAL
SAMPLE DESCRIPTION CONT.

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	45%	SLTST dkbrn-rdbrn frm blkyp ip slsdy occ calc
	5%	SS AA
4050-4060	60%	SH AA
	30%	SLTST AA
	10%	SS clr ltgy vfg wcmt wsrt cln calc sbang-sbrd
4060-4070	55%	SH dkrd-rdbrn frm plty-blky slsly-sly
	30%	SLTST AA
	15%	SS AA occ orng
4070-4080	40%	SS ltorng clr ltbrn fg wcmt wsrt slsly sbang-sbrd
	30%	SH AA
	30%	SLTST AA
4080-4090	50%	SH red-rdbrn frm blkyp-plty slsly sm calc
	30%	SLTST AA
	20%	SS clr wh ltorng f-vfg wcmt wsrt slsly-cln
4090-4100	65%	SH AA
	25%	SLTST dkbrn-rdbrn frm blkyp ip sm slsdy
	10%	SS AA
4100-4110	70%	SH AA
	20%	SLTST AA
	10%	SS ltgy-wh vfg occ fg wcmt m-wsrt sbang-sbrd
	TR	CHT clr-pk sbrd
4110-4120	60%	SH rd-rdbrn frm blkyp-plty occ slty & sdy occ lmy
	30%	SLTST AA
	10%	SS AA
	TR	LS ltrdorng hd blkyp arg mcxl
4120-4130	70%	SH AA
	20%	SLTST rdbrn-rd frm blkyp occ sdy mcalc
	10%	SS AA
4130-4140	60%	SH AA
	30%	SLTST AA
	10%	SS clr-wh vfg m-wcmt m-wsrt sbang-sbrd slcalc
4140-4150	60%	SH rd-rdbrn ltgy blkyp-plty occ slty occ lmy
	30%	SLTST AA
	10%	SS clr rd f-vfg m-wcmt msrt sbang-sbrd arg
	TR	LS ltgy-mgy frm blkyp-plty micxl v arg
4150-4160	60%	SH AA
	30%	SLTST rd-rdbrn frm blkyp-plty occ sdy mcalc
	10%	SS AA
	TR	LS AA
4160-4170	60%	SLTST dkbrn-rd frm blkyp sdy ip ncalc
	20%	SH AA
	20%	SS AA
4170-4180	55%	SLTST AA
	30%	SH AA
	15%	SS ltorng wh f-vfg mcmt m-wsrt slty-cln sbang-sbrd

MERIDIAN OIL, INC.
 11-14 CHEROKEE FEDERAL
 SAMPLE DESCRIPTION CONT.

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4180-4190	50%	SLTST rd-rdbrn-dkbrn frm blkyp ip sdy n-mcalc
	25%	SH AA
	25%	SS wh f-vfg wcmt wsrt cln calc sbang-sbrd
4190-4200	40%	SH rd-rdbrn frm blkyp ip slsly ncalc
	40%	SLTST AA
	20%	SS AA
4200-4210	70%	SH AA
	25%	SLTST dkbrn-rdbrn frm blkyp slsdy ncalc
	5%	SS AA
4210-4220	65%	SH rd-rdbrn frm plty-blkyp slsly
	25%	SLTST AA
	10%	SS AA
4220-4230	60%	SH AA
	40%	SLTST rd-rdbrn frm blkyp ip sm slsdy
4230-4240	65%	SH AA
	35%	SLTST AA
	TR	LS lt-mgy plty-blkyp mcxl slarg
4240-4250	70%	SH rd-rdbrn sm grn frm plty-blkyp slsly
	30%	SLTST AA
	TR	SS wh clr f-vfg m-wcmt wsrt cln sbang-sbrd
4250-4260	70%	SH AA decr grn
	30%	SLTST brn-rdbrn frm blkyp ip slsdy mcalc
4260-4270	60%	SH AA
	30%	SLTST AA
	10%	SS AA
4270-4280	50%	SH rd-rdbrn frm occ hd blkyp-plty occ vsdy calc
	30%	SS clr rd f-vfg m-wcmt msrt sbang-sbrd v arg
	20%	SLTST AA
4280-4290	70%	SH AA
	20%	SLTST rd frm blkyp occ plty occ sdy v arg slcalc
	10%	SS AA
4290-4300	60%	SH AA
	30%	SLTST AA
	10%	SS clr occ rd f-vfg m-wcmt msrt sbang-sbrd occ arg mcalc
4300-4310	50%	SH rd-rdbrn frm-sft blkyp-plty occ slty & sdy mcalc
	40%	SLTST
	10%	SS AA
4310-4320	40%	SH AA
	40%	SLTST rd frm blkyp occ sdy mcalc
	10%	SS clr f-vfg mcmt msrt sbang-sbrd occ arg
4320-4330	60%	SLTST
	40%	SH rdbrn-brn frm blkyp-plty slty slcalc

MERIDIAN OIL, INC.
 11-14 CHEROKEE FEDERAL
 SAMPLE DESCRIPTION CONT.

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4330-4340	65%	SLTST mbrn rd frm blk y ip sndy ip mcalc
	35%	SH AA
4340-4350	70%	SLTST rdbrn-brn frm blk y sm slsdy calc
	20%	SH AA
	10%	SS wh ltgy vfg m-wcmt wsrt cln ip sbang-sbrd
4350-4360	60%	SLTST AA
	35%	SH rd-rdorn g frm blk y-plty slsly mcalc
	5%	SS AA
4360-4370	65%	SLTST dkbrn frm blk y sm mica slsdy mcalc
	30%	SH AA
	5%	SS AA
4370-4380	70%	SLTST AA /abnt mica
	25%	SH rd-rdbrn frm blk y-plty smth-slsly
	5%	SS AA incr slty
4380-4390	60%	SLTST AA
	30%	SH AA
	10%	SS ltgy clr f-vfg mcmt msrt sbang-sbrd
4390-4400	50%	SLTST dkbrn-rdbrn frm blk y sm slsdy mcalc
	40%	SH AA
	10%	SS AA
4400-4410	60%	SH rd brn frm plty-blky
	30%	SLTST AA
	10%	SS clr vfg mcmt m-wsrt sbang-sbrd
4410-4420	70%	SH AA
	20%	SLTST rdbrn frm blk y occ sdy
	10%	SS AA
	TR	LS lt-mgy frm plty varg micxl
4420-4430	70%	SH rd brn frm plty-blky occ slty
	30%	SLTST AA
4430-4440	80%	SH AA
	20%	SLTST brn frm blk y occ plty occ mica incl sl calc
4440-4450	80%	SH rd-rdbrn occ grn frm plty-blky occ slty
	20%	SLTST AA
4450-4460	70%	SH AA
	30%	SLTST AA
4460-4470	65%	SH AA
	35%	SLTST rdbrn-brn frm blk y sm plty mcalc
	TR	LS gybrn blk y mcxl slarg
4470-4480	75%	SH rd-rdbrn gygrn frm blk y-plty smth-slsly
	25%	SLTST AA
4480-4490	60%	SH AA
	30%	SLTST AA
	10%	SS clr ofwh fg wcmt msrt slsly sbang-sbrd

MERIDIAN OIL, INC.
11-14 CHEROKEE FEDERAL
SAMPLE DESCRIPTION CONT.

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4490-4500	60%	SH rdorng-rdbrn frm blkyltly slsly
	35%	SLTST AA
	5%	SS AA
	TR	ANHY ltgy-wh plty ip mod w/carb strks
4500-4510	50%	SLTST dkbrn frm blkyltly slsly mica
	40%	SH AA
	10%	SS AA
4510-4520	45%	SLTST AA
	40%	SH dkbrn-rd frm plty-blky slsly
	15%	SS ltgy-mbrn vf-fg wcmr wrsr slty sbang-sbrd
4520-4530	60%	SLTST m-dkgy frm blkyltly ip /tr mica calc-lmy
	35%	SH rd sm m-dkgy grdg to SLTST
	5%	SS AA
	TR	LS lt-mgy blkyltly micxl slarg-arg
4530-4540	70%	SLTST AA
	30%	SH rdorng m-dkgy frm plty-blky slty calc
	TR	LS AA
4540-4550	65%	SLTST lt-mgy rd frm blkyltly sdy calc-lmy
	30%	SH AA
	5%	SS clr lty f-vfg wcmr wrsr cln-slsly calc
	TR	LS AA
4550-4560	45%	SLTST lt-mgy rdbrn frm plty-blky sdy ip
	40%	SH AA
	15%	SS AA
	TR	LS lt-mbrn mc-vfxl blkyltly slarg
4560-4570	40%	SLTST AA
	30%	SH AA
	30%	SS mgy clr f-mg wcmr msrt slsly calc
4570-4580	50%	SLTST dkbrn mgy frm blkyltly abnt mica ady ip
	40%	SS AA
	10%	SH rd-rdbrn frm plty-blky smth-slsly mcalc
4580-4590	45%	SLTST AA
	45%	SS lt-mgy fg wcmr msrt vsly occ mica sbang-sbrd
	10%	SH AA
4590-4600	50%	SLTST mgy rdbrn frm blkyltly sm mica n-slcalc
	40%	SS AA
	10%	SH AA
4600-4610	50%	SLTST AA
	30%	SS AA
	20%	SH rd-rdbrn frm blkyltly slsly mcalc
	TR	LS lt-mgy blkyltly micxl slarg
4610-4620	60%	SLTST AA
	20%	SS mgy clr fg wcmr wrsr slty sm cly sbang-sbrd
	20%	SH AA

MERIDIAN OIL, INC.
11-14 CHEROKEE FEDERAL
SAMPLE DESCRIPTION CONT.

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4620-4630	40% SLTST AA 30% SS AA 20% LS lt-mgy crp-micxl blkyl blkyl cln-slarg 10% SH AA
4630-4640	40% SLTST mgy dkbrn frm blkyl sdy occ mica mcalc 30% LS AA 20% SS ltgy fg wcmr wrsr slty ip sm mica sbang-sbrd 10% SH brkrd frm blkyl-plty slsly vsllcalc
4640-4650	35% SLTST AA 30% LS AA 25% SS clr ltgy f-mg m-wcmr wrsr slsly sm mica sbang-sbrd 10% SH AA
4650-4660	50% SLTST AA 30% LS lt-mgy hd crp-micxl cln-slarg 10% SS AA 10% SH AA
4660-4670	50% SLTST Mgy frm blkyl sdy ip occ mica slcalc 40% SS clr ltgy f-mg wcmr msrsl slty /abnt mica & pyr 10% SH AA TR LS AA
4670-4680	50% SH m-dkgy frm blkyl ip slsly calc-lmy 40% SLTST mgy rdbn frm blkyl slsly mcalc-calc 10% SS AA TR LS AA
4680-4690	50% SH AA 30% SLTST rdbn-dbrn frm blkyl slsly calc 20% SS wh vfg mcmr wrsr cln ip calc sbang-sbrd TR LS mbrn hd plty-blkyl micxl slarg
4690-4700	55% SH brkrd m-dkbrn frm blkyl-plty slsly 30% SLTST AA 15% SS AA
4700-4710	40% SH AA 40% SS clr-ltgy f-vfg sl s&p occ glac incl mcmr msrsl sbang-sbrd 20% SLTST AA
4710-4720	50% SH AA 30% SS AA 20% SLTST rdbn-dbrn frm blkyl occ plty slsly calc
4720-4730	70% SH rdbn dkgy frm plty-blkyl occ slty occ mica incl slcalc 30% SLTST AA
4730-4740	80% SH AA 20% SLTST Mbrn-dkgy frm blkyl-plty arg mcalc
4740-4750	70% SH AA 20% SLTST AA 10% LS lt-mgy frm blkyl occ plty dns micxl occ arg

MERIDIAN OIL, INC.
 11-14 CHEROKEE FEDERAL
SAMPLE DESCRIPTION CONT.

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4750-4760	50% SH rd dkgy frm blkyl-pty occ slty
	50% LS AA
4760-4770	70% LS lt-mgy frm occ hd blkyl occ pty dns crp-mcxl occ fos frag n-m arg
	30% SH AA
4770-4780	80% LS ltgy occ mgy frm blkyl-pty dns mcxl n-marg
	20% SH AA
4780-4790	90% LS AA
	10% SH dkgy frm blkyl-pty occ slty occ lmy
4790-4800	60% SH rd-rdbrn mgy frm blkyl-pty occ slty
	20% SLTST rd frm blkyl-pty marg
	20% LS AA
4800-4810	70% SH AA
	20% LS m-dkgy frm-hd blkyl occ pty crp-mcxl
	10% SLTST AA
4810-4830	80% SH rd brn blkyl-pty frm occ slty
	20% LS AA
4830-4840	50% SH rdorng-rdbrn-brn-lt-mgy blkyl-pty slsly slmica sl-nalc sft-frm
	30% LS wh-brn-ltgy crp-micxl sl rthy occ vslsly occ cln tt chky ip vsl fos mfrm-mhd
	20% SLTST lt-mgy brn vsdy-varg mica calc fri-mfrm
	TR CHT mbrn trns1 clr hd
4840-4850	40% SH AA
	30% LS AA
	20% SLTST AA
	10% CHT AA
4850-4860	60% SH AA mot ip
	30% LS AA
	10% SLTST AA w/ABNT CVGS
4860-4870	50% LS lt-mgy grybrn micxl crpxl ip vrthy-vslty grdg to lmy SLTST tt vsl fos frm-mhd
	30% SLTST lt-mgy vsdy-vlmy mica arg fri-frm
4870-4880	40% LS AA
	40% SH lt-mgy brn-rdorng-rdbrn ip blkyl-sbply slsly mic slcalc sft-mfrm
	20% SLTST AA
4880-4890	50% LS ltgy wh-ltbrn ip micxl crpxl ip vslty ip rthy chky ip tt sl ANHY ip sl fos frm-mfrm
	30% SH AA
	20% SLTST AA
	TR ANHY wh trns1 xl ip sft-mfrm
4890-4900	60% LS AA occ cln
	20% SH AA
	20% SLTST AA

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4900-4910	70% SH lt-mgy-gybrn-brn sbblky-plty slsly mic slcalc mrly ip sft-frm 20% LS AA pred lt-mgy mcxl vrthy
4910-4920	60% SH AA 20% LS AA 20% SLTST AA
4920-4930	40% LS AA 30% SH AA 30% SLTST AA vsdy grd to slty SS ip
4930-4940	40% SH AA 40% SLTST AA vlmy grd to slty LS 20% LS AA vsly TR ANHY wh trns1 xl ip sft-mfrm
4940-4950	60% LS bf-ltgy-mgy-gybrn ip mcxl-vfxl crpxl ip gran ip rthy slsly dol ip ANHY ip tt sl fos frm-mhd NFSOC 30% SH lt-mgy blk-sbply slsly mic sl dol mrly ip calc sft-frm 10% SLTST ltgy-ltgybrn slsly arg mica calc sl ANHY ip frm-mfrm 10% ANHY AA
4950-4960	40% LS AA 40% SLTST AA 10% SH AA 10% ANHY AA
4960-4970	40% LS AA ltbrn ip 30% SH m-dkgy blk-sbply slsly mrly mic ip calc-sl dol ip slcarb- sooty frm-mfrm brit ip 20% ANHY wh trns1 xl ip sft-frm 10% SLTST AA
4970-4980	60% LS AA fos ip NFSOC n vis por 30% SH AA 10% ANHY AA
4980-4990	80% LS ltgy lt-mbrn tan crpxl-micxl rthy-slsly occ cln fos is sl ANHY sl DOL frm-mhd 20% SH AA TR ANHY AA & TR SLTST AA
4990-5000	90% LS Ltgy-ltgybrn-ltbrn mcxl-gran ip crpxl ip rthy-slsly tt sl ANHY sl fos ip frm-mhd NFSOC 10% SH m-dkgy dkgybrn-blk ip sbblky-sbply slsly mic ip calc-vsl carb sooty ip sft-frm TR ANHY AA
5000-5010	70% LS AA w/ANHY INCL vsly grd to lmy SLTST ip NFSOC 20% SH AA brit ip 10% SLTST ltgy ltbrn slsly-sdy vlmy mic arg sl ANHY fri-frm TR ANHY AA
5010-5020	70% SH dkgy-blk frm-hd blk ply ip mcalc occ lmy occ carb 30% LS AA
5020-5030	50% SH AA 50% LS lt-mgy mcxl occ crpxl occ ANHY /TR FOS crin hd-frm

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5030-5040	60% LS m-dkgy mcxl m-slarg occ slty & sdy w/TR FOS frm-hd 40% SH dkgy-blk frm-hd blk calc-lmy occ carb
5040-5050	50% LS AA 40% SH AA 10% SLTST mgy-ltgy slsdy-sdy occ lmy mica fri-frm
5050-5060	80% SLTST ltgy slsdy vlmy fri-frm 20% LS AA
5060-5070	40% SLTST AA 40% SH dkgy rd frm-hd blk occ calc-lmy occ slty 20% LS AA
5070-5080	40% SH lt-mgy gybrn sbblky-sbplty slsly lmy-mrly ip mica frm 30% SLTST ltgy-brn sdy-slsdy mica lmy fri-frm 30% LS ltgy-gybrn-ltbrn crpxl-mcxl sl rthy-occ cln slsly tt vs ANHY frm-mhd TR ANHY & ABNT CVGS
5080-5090	40% LS wh ltgy brn tan ip crp-micxl occ cln rthy ip sl ANHY ip slty ip vsl fos tt frm-mhd 40% SH lt-dkgy gybrn blk-sbplty slsly mica sl mrly calc carb-sooty ip sft-frm 20% SLTST Ltgy gybrn slsdy-sdy calc mica arg lmy fri-frm
5090-5100	40% SH AA 30% LS AA 30% SLTST AA
5100-5110	80% LS pred crm-wh-bf tan-ltgy ip crp-mcxl sl rthy-sl chky ip occ cln tt sl chty sl fos occ ANHY slty ip frm-mhd 10% SH AA 10% SLTST AA
5110-5120	50% AA incr ltgy slty 30% SH AA 20% SLTST AA
5120-5130	40% LS AA 40% SH AA 20% SLTST AA vlmy
5130-5140	60% SH AA gybrn ip 30% LS bcmg brn-gbrn AA 10% SLTST AA brn ip
5140-5150	50% SH lt-mgy gybrn blk-sbplty mrly ip mica ip vslsly calc sft-frm 40% LS brn-tn gybrn wh-ltgy ip crp-micxl occ sl rthy slsly cln ip tt chky ip vsl fos frm-mhd 10% SLTST AA
5150-5160	50% SH AA 30% LS pred brn-gybrn AA 20% SLTST brn gybrn-gy sdy-vsdy mica calc arg ip fri-frm
5160-5170	60% LS tan-brn gybrn wh-ltgy ip crp-micxl slrthy-slchky ip slsly occ chty cln ip tt sl fos frm-mhd

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SAMPLE DESCRIPTION CONT.

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5170-5180	40% LS AA	
	40% SH lt-mgy mgybrn blkysbplty slsly ip mica ip occ mrly calc sl	
		crab-vsl soty ip sft-frm
	10% SLTST brn-gybrn ltgy slsdy-sdy mica calc arg fri-mfrm	
	10% CHT tan occ ltbrn hd	
5180-5190	70% LS wh-ltgy-tan AA sl ANHY ip FOS ip	
	30% SH AA	
	TR SLTST AA & TR CHT AA	
5190-5200	50% LS AA	
	50% SH AA occ dkgy	
	TR CHT & SLTST AA	
5200-5210	60% LS AA	
	30% SH AA	
	10% CHT tan-ltbrn clr hd	
	TR SLTST	
5210-5220	30% SLTST Ltgy-ltgygn-ltbrn sdy-vsdy mica calc arg fri-frm	
	30% SS ltgygn-ltgy-wh f-vfg sbang-sbrd wsrt slarg mica ip calc slty	
		ip w/TR intgran por-tt fri-mfrm NFSOC
	20% LS AA	
	20% SH AA	
5220-5230	50% LS ltgy mbrn ip occ wh-tan crp-mcxl rthy slsly occ slchty sl	
		chky tt occ cln vsl ANHY ip frm mhd
	30% SH lt-mgy gybrn-brn ip sbblky-plty slsly mica ip occ mrly calc	
		sft-frm occ brit
	20% SLTST AA pred CVGS	
	TR SS AA CVGS	
5230-5240	50% LS AA	
	50% SH AA	
	ABNT SLTST-SS CVGS	
5240-5250	60% SH AA	
	40% LS pred wh-ltgy AA	
	ABNT SLTST & SS CVGS	
5250-5260	60% LS ltgy-tan wh bf-ltbrn ip crp-mcxl occ rthy-sly slchky ip chty	
		ip vslfos occ cln tt mfrm-mhd
	40% SH lt-mgy gybrn occ rdorng ip blkysbplty slsly occ mica calc	
		sft-frm
	TR CHT clr trns1 mot hd	
5260-5270	70% LS AA	
	30% SH AA	
5270-5280	50% LS m-dkgy mcxl occ arg occ chty occ slty-sdy frm-hd	
	30% SH AA	
	20% SLTST m-dkgy frm-hd blkysbplty m-vlmy m-arg	
5280-5290	40% LS AA	
	30% SH m-dkgy frm-hd blkysbplty ip occ slty-sdy m-lmy	
	30% SLTST	

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5290-5300	50% LS m-dkgy mcx1 occ arg vs1ty occ sdy frm-hd 30% SLTST AA 20% SH AA
5300-5310	70% LS lt-mgy tan micx1 occ crpx1 occ slty sl-m arg frm-hd 20% SH AA 10% CHT trns1-ltgy ang hd
5310-5320	90% LS AA 10% CHT AA
5320-5330	50% LS AA 50% SH dkgy-blk frm-hd blk-p1ty & lmy mcarb occ slty TR CHT AA
5330-5340	80% SH AA 20% LS mgy mcx1 marg occ slty blk frm-hd
5340-5350	70% SH AA 30% LS lt-mgy mc-crpx1 w/TR FOS occ slarg tt frm-hd TR CHT trns1-ltgy ang hd
5350-5360	90% LS AA 10% SH m-dkgy frm-hd blk-p1ty slty ip m-lmy
5360-5370	70% LS lt-mgy tan mc-crpx1 w/TR FOS occ sl ANHY occ slty-sdy occ arg ip frm-hd 30% SH AA
5370-5380	60% LS AA 20% SH AA 20% SLTST tan-ltgy frm blk p1ty ip occ sdy lmy mod arg
5380-5390	70% LS AA 20% SH mgy frm blk-p1ty occ slty lmy 10% SLTST AA
5390-5400	80% LS lt-mgy mcx1 m-narg w/TR FOS frm-hd 20% SH AA TR CHT trns1 yel ang hd
5400-5410	70% LS lt-mgy mcx1-crpx1 ip n-marg sls1ty-slty w/TR FOS frm-hd 30% SH mgy frm blk-p1ty sl-m1my occ slty
5410-5420	80% LS AA 20% SH AA
5420-5430	100% LS lt-mgy mc-crpx1 n-marg ANHY ip occ sl slty w/TR FOS frm-hd TR CHT clr-trns1 ang hd
5430-5440	100% LS crm wh tan mc-crpx1 rthy-chky s chty FOS sl ANHY mfrm-mhd NFSOC TR CHT trns1-bf hd
5440-5450	100% LS AA NO FLOR, vrr frac-intx1-pp vug Ø, dd 0 STN, NO CUT w/ DOL mud fil POR TR CHT

5450-5460	70%	LS crm wh ltgy tan gybrn mbrn mic-crpxl rthy sl chky, crin FOS, FOS HASH, sl ANHY sl slty sl chty
	30%	SH m-dkgy dkgybrn blk-sbplty lmy-mrly slsly slmic FOS ip carb vsi soty mfrm brit ip
	TR	CHT & sl TR ANHY
5460-5470	90%	SH AA
	10%	SLTST gybrn mbrn varg sl slty calc-carb sl soty fri-mfrm
	TR	LS AA
5470-5480	70%	SH AA
	20%	LS gybrn-brn wh-ltgy ip-tan micxl-vfxl gran-crpxl ip varg sl slty sl DOL-sl ANHY ip v FOS ip frm-mhd
	10%	SLTST AA v lmy
	TR	CHT
5480-5490	40%	SH AA
	40%	LS AA
	10%	SLTST AA
	10%	COAL blk vit brit
5490-5500	90%	LS crm-wh-tan-ltbrn crp-mcxl rthy-chky ip occ cln tt sl FOS sl ANHY mfrm-mhd
	10%	SH AA
	TR	SLTST AA
	TR	CHT trsl bf hd
5500-5510	90%	LS AA sl chty
	10%	CHT AA
	TR	SH & TR SLTST
5510-5520	50%	LS AA pred ltgy vrthy slsly
	50%	SH lt-mgy ltgybrn ip blk-plty lmy sl mrly mica ip slsly occ sl carb sl soty mfrm-brit
	TR	CHT AA
5530-5540	60%	SH AA
	40%	LS AA occ sl sdy occ ANHY INCL
5550-5560	90%	SH dkgy-blk frm-hd blk-plty ip occ slsly m-lmy
	10%	LS AA
5560-5570	70%	SH AA
	30%	LS lt-mbrn ltgy mcxl-crpxl occ slarg-cln tt w/TR FOS frm-hd
5570-5580	60%	LS ltgy-tan lt-mbrn mcxl-crpxl ip chky slarg w/TR FOS AA tt chty ip
	40%	SH m-dkgy frm-hd blk-plty occ slty m-lmy carb ip
	TR	CHT clr-trns ang hd
5580-5590	50%	LS AA
	50%	SH AA
	TR	CHT AA
5590-5600	70%	LS ltgy-tan lt-mbrn mcxl occ crpxl chky ANHY ip tt w/
	TR	FOS frm occ mhd chty ip
	30%	SH AA

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5600-5610	90% LS lt-mgy tan mcxl-crpxl occ chky pred cln occ sl ANHY ip tt w/ TR FOS frm-hd occ slty 10% COAL blk frm-sft blk bit
5610-5620	100% LS mgy occ ltgy mc-crpxl occ slty pred cln-sl chky tt occ sl ANHY ip w/TR FOS crin frm-hd TR CHT trns1 ang hd
5620-5630	80% SH dkgy blk ip frm-hd blk occ plty m-lmy occ sl slty occ carb ip 20% LS AA occ dkgy
5630-5640	80% SH AA 20% LS m-dkgy mcxl m-varg occ slty frm
5640-5650	80% SH pred dkgy occ blk & mgy frm-hd blk-plty sl-m lmy w/TR FOS occ sl slty occ carb ip 20% LS AA mgy w/TR FOS
5650-5660	90% LS lt-mgy tan ltbrn mic-crpxl chky-slrg w/TR FOS occ ANHY INCL occ sl slty ip tt frm-hd w/ TR PYR 10% SH AA
5660-5670	100% LS lt-mgy tan mc-crpxl occ chky occ ANHY INCL w/TR FOS occ PYR INCL occ sl slty frm-hd
5670-5680	90% LS ltgy-gy tan mc-crpxl v rthy-slsly sl chky chty vs1 FOS frm-mhd 10% SH ltgy-ltgybrn sbblk-plty lmy sl slty slmica calc sft-frm TR CHT trns1 hd
5680-5690	70% LS AA 20% SH lt-dkgy blk-sbplty slsly slmica calc-carb sl soty DOL ip mfrm-frm 10% CHT trns1 ltbrn hd
5690-5700	90% SH AA gybrn-blk ip vsly ip 10% SLTST gybrn-ltbrn vang slmica soty-slcab ip calc fri-mfrm TR LS AA & CHT AA
5700-5710	50% SH AA 40% LS ltgy-ltgybrn wh-tan ip mic-crpxl sl gran v rthy-slsly chky ip occ cln tt sl ANHY mfrm-mhd 10% SLTST AA TR CHT trns1 smky gy dkbrn tan hd
5710-5720	60% LS pred tan-wh ltgybrn brn ip crp-mcxl sl rthy cln occ slty-chky occ rthy vs1 FOS mfrm-mhd 30% SH AA 10% CHT trns1 ltbrn smky brn hd TR SLTST
5720-5730	40% LS AA vsly grd to lmy SLTST 40% SLTST ltgy-ltbrn vlmy sdy slmica arg ip fri-frm 20% SH AA TR CHT AA
5730-5740	90% LS crm ltgy tan ltgybrn mcxl-crpxl ip v rthy chky ip slsly-sly occ cln tt vs1 FOS chty ip sl ANHY ip mfrm-hd

	10%	CHT trns1 ltbrn hd
	TR	SH AA & TR SLTST AA
5740-5750	60%	LS AA mbrn ip vs1ty ip chty
	20%	SH lt-mgy sbblky-sbplty sls1ty-slmica ip calc occ carb-sl soty sl dol
	10%	SLTST ltgy-gybrn vlmy slmica v arg slsdy occ slcarb fri-frm
	10%	CHT AA
5650-5760	100%	LS tan-ltgybrn-ltgy mcx1-occ crpx1 rthy-slty ip occ chky vs1 chty occ c1n tt sl ANHY vs1 FOS frm-hd
	TR	SH, SLTST & CHT AA
5660-5770	100%	LS AA
	ABNT	CHT AA
5770-5780	50%	LS AA
	50%	SH lt-mgy gybrn blky-sbplty sls1ty vlmy vs1 soty vs1 mica frm-brit ip
	ABNT	CHT AA
5780-5790	80%	SH AA
	20%	Ls aa mrly ip
	TR	SLTST ltgy-ltgybrn slsdy varg vcalc sl mica ip mfrm
5790-5800	90%	SH AA mrly ip dkgv ip
	10%	SLTST AA
	TR	LS AA
5800-5810	70%	SH m-dkgv blk ip sbblky-plty sls1ty occ mica sl carb-soty calc-sl dol mfrm-brit
	20%	SLTST AA
	10%	LS Lt-dkbrn mcx1 occ gran v arg slty occ chty sl fos tt frm-hd
	TR	CHT AA
5810-5820	50%	SH AA
	40%	LS wh-ltbrn-brn gybrn mcx1 gran-crpx1 ip vrthy-sls1ty sl FOS, ANHY ip,rr intx1 por-tt frm-mhd NFSOC
	10%	SLTST AA
	TR	ANHY wh sft
5820-5830	50%	LS tan-ltbrn-occ dkbrn-ltgy mc-crpx1 rthy-sls1ty fos ip occ c1n sl DOL, ANHY frm-hd
	30%	SH AA
	20%	ANHY wh trns1 x1 ip sft-frm
	TR	SLTST AA
5830-5840	50%	LS AA
	30%	SH dkgv-blk occ mgy frm-hd blky-plty occ slty occ lmy
	20%	ANHY AA
5840-5850	50%	LS mgy-tan mcx1 occ crpx1 rthy-arg occ sls1ty w/
	TR	FOS ANHY frm occ hd
	40%	SH AA
	10%	ANHY AA
5850-5860	70%	SLTST Ltgy-mgy frm-fri blky vlmy occ slsdy
	30%	SH AA

	10% LS AA
	TR ANHY AA
5860-5870	50% SLTST AA
	30% LS ltgy-ltbrn-tan mcxl-crpxl ip n-m slty slarg anhy w/TR FOS frm-hd occ cln w/
	TR FLOR dul yel/CUT yel ring
	10% SH m-dkgy frm blk occ plty occ slty lmy
	10% ANHY wh trns1 xln ip sft-frm
5870-5880	80% LS ltbrn-tan ltgy ip mc-crpxl occ vfxl occ slty cln-slarg occ
	ANHY INCL frm-hd w/TR FOS &
	TR FLOR dul yel/CUT slo strmg yel/STN ltbrn/occ pp vug Ø & occ pp
	intgranxl-suc Ø
	10% SH AA
	10% ANHY AA
5880-5890	100% LS ltgy-ltbrn-tan mc-crpxl occ vfxl occ slsly cln-sl arg occ
	ANHY INCL w/TR FOS frm-hd
	TR ANHY & SH
5890-5900	70% LS ltgy-ltbrn-tan crp-mcxl ip occ DOL-sl ANHY slarg-slsly fr
	intgran pp vug por frm-hd w/
	TR FLOR dul-bri yel/ STN rr lt-dkbrn/CUT slo strmg mky
	10% ANHY wh sft
	TR SH dkgy-blk blk-sbplty slsly lmy sl DOL carb-soty mfrm-frm
5900-5910	50% LS AA w/FSC AA
	40% DOL dkbrn ip AA g intxl-f pp vug Ø w/
	FLOR f dul-bir yel/STN f-g lt-dk/CUT g strmg mky
	10% ANHY AA
5910-5920	50% LS AA vANHY-ANHY INCL w/ Ø FSC AA
	30% DOL AA w/ANHY INCL w/Ø FSC AA
	20% ANHY AA xl ip mfrm ip
5920-5930	40% LS AA w/FOS, Ø, FSC AA
	40% DOL AA w/Ø, FSC AA
	10% ANHY AA
	10% SH dkgy-blk blk-sbplty sl slty lmy sl DOL carb-soty ip mfrm-frm
5930-5940	40% LS lt-mbrn-mgy mc-crpxl occ DOL occ ANHY & ANHY INCL rthy ip w/
	TR FOS frm-hd
	30% DOL mgy-mbrn occ dkbrn occ lmy ANHY ip & ANHY INCL slarg crpxl-micxl frm-hd
	20% SH m-dkgy blk ip frm-hd blk-plty occ slty occ lmy carb ip
	10% ANHY AA
5940-5950	30% LS AA
	30% DOL AA
	20% SH AA w/occ mbrn
	20% ANHY AA
5950-5960	40% LS m-dkbrn-mgy crp-mcxl arg ip occ ANHY-ANHY INCL w/
	TR FOS frm-hd occ DOL
	30% SH m-dkgy blk ip frm-hd blk-plty occ carb occ slsly
	20% DOL AA
	10% ANHY wh-trns1 sft-frm occ xl

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 SAMPLE DESCRIPTION CONT.

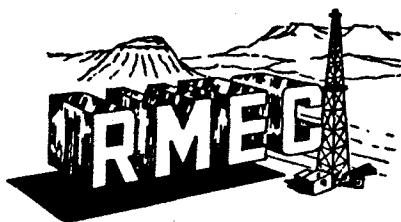
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5960-5970	80% SH blk frm hd ip plty-blky carb occ slsly
	10% LS AA
	10% ANHY AA
5970-5980	100% SH AA
5980-5990	100% SH blk frm plty-blky ip v carb
5990-6000	50% LS lt-mgy occ dkgy mcxl sl-marg occ DOL frm-hd sl ANHY-ANHY INCL
	40% SH AA
	10% ANHY AA
6000-6010	50% LS AA occ sl-msly
	20% SH AA
	20% DOL ltgy-tan mcxl lmy ip occ ANHY sl rthy frm-hd
	10% ANHY wh-trns slft-frm xl ip
6010-6020	70% DOL mgy mcxl occ lmy occ ANHY-ANHY INCL sl rthy occ slsly mfrm-hd
	20% ANHY AA
	10% SH AA
6020-6030	60% DOL AA w/ANHY INCL
	40% ANHY wh-trns occ DOL INCL
6030-6040	50% DOL dkgybrn-brn mcxl-vfxl gran ip arg lmy ANHY FOS ip f-intgran
	ø n vis FCOS frm-mhd
	30% ANHY wh-trns xl ip slft-frm
	20% LS ltbrn-ltgy crp-mcxl gran ip DOL vrthy ip ANHY slsly sl FOS w/
	TR ø intxl-tt frm-hd n vis FSOC
6040-6050	70% DOL AA v rthy
	10% ANHY AA
	20% SH m-dkgy blk sbblky-sbply calc slsly sl DOL carb-soty slft-frm
	TR LS AA
6050-6060	90% SH AA
	10% DOL lt-dkbrn-dkgybrn AA
	TR LS ltbrn AA
6060-6070	100% SH dkgy-blk sbblky-sbply slty calc-DOL carb-soty slft-mfrm
	TR DOL & ANHY
6070-7080	60% SH AA
	30% DOL brn-gybrn micxl-vfxl gran ip rthy slty ANHY calc sl FOS f-g
	inxl ø frm-mhd n vis FSOC
	10% ANHY wh slft
6080-6090	70% DOL AA vrthy-vslty ANHY FL ø-g intxl-rr pp vug ø w/vp slo mky
	CUT/NO VIS FLOR OR STN
	20% SH AA
	10% ANHY AA
6090-6100	50% DOL AA w/TR f-ø w/NFSOC
	30% ANHY wh-trns xl ip slft-mfrm
	10% LS AA
	10% SH AA

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SAMPLE DESCRIPTION CONT.

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6100-6110	40% DOL AA 40% ANHY - DOL INCL AA 20% SH AA
6110-6120	40% DOL brn-gybrn micxl-vfxl vsly vrthy calc FOS ANHY ip f intxl ϕ - tt ip mhd n vis FLOR vp fnt <u>STN</u> /vp slo mlky <u>CUT</u> 40% SH m-dkgy blk sbblky-sbply slsly calc-DOL carb-soty sft-mfrm 20% ANHY wh-trns1-ltgy xl ip sft-mfrm DOL INCL
6120-6130	60% DOL AA mgy ip f intxl ϕ , no vis FSOC 30% SH AA 10% ANHY AA
6130-6140	80% DOL ltbrn-ltgybrn vfxl occ mcxl gran v ANHY rthy-slsly ip lmy ip w/f-g intxl ϕ -pred ANHY FL, NFSOC 10% SH AA 10% ANHY AA
6140-6150	50% DOL lt-dkbrn gybrn AA w/ ϕ AA & no vis FLOR or STN/fnt res ring <u>CUT</u> 40% ANHY AA dol ip 10% SH AA
6150-6160	70% DOL AA g intxl ϕ , v fnt dul yel-gn <u>FLOR</u> / vrr dkbrn <u>STN</u> / TR dd <u>0</u> <u>STN</u> / p-f strmg mlky <u>CUT</u> 20% ANHY wh-trns1-gybrn DOL INCL xl ip sft-mfrm 10% SH AA
6160-6170	70% DOL AA NFSOC 20% SH blk sbblky-pty slsly calc-dol carb-soty sft-frn 10% ANHY
6170-6180	90% SH AA 10% SLTST dkgybrn v arg calc-sldol soty-slcab mica ip fri-mfrm TR DOL
6180-6190	90% SH AA 10% SLTST AA
6190-6200	70% SH AA 20% DOL dkbrn mcxl-vfxl rthy-sly slcalc ANHY ip rr intxl ϕ frm-hd 10% SLTST AA TR ANHY wh-ltgybrn xl ip sft-mfrm TR LS ltgy crpxl dol tt hd
6200-6210	50% DOL AA vrthy ϕ -w/ FLOR, CUT & STN AA 30% SH AA 10% ANHY AA
6210-6220	60% DOL lt-mgybrn AA f-intxl ϕ w/TR ANHY FL & NO VIS FSOC 20% SH AA 20% ANHY wh-trns1 occ xl sft-mfrm
6120-6132	40% SH blk blk-sbply slsly occ mica calc-dol carb-soty ip sft-frn 30% ANHY AA 30% DOL AA



ROCKY MOUNTAIN GEO-ENGINEERING CO.

WELL LOGGING — CORE AND WATER ANALYSIS

2450 INDUSTRIAL BLVD.

PHONE 243-3044

GRAND JUNCTION, COLORADO 81501

COMPANY MERIDIAN OILWELL NO. 11-14 CHEROKEE FEDERALLOCATION SAN JUAN COUNTY, UTAH Sec 14, T37S, R23EZONE OF INTEREST NO. 1INTERVAL: From 5440 To 5444DRILL RATE: Abv 3 min/ft Thru 1.5 min/ft Below 2.5 min/ft

MUD GAS-CHROMATOGRAPH DATA

M = 1000 ppm

	TOTAL	C ₁	C ₂	C ₃	C ₄	C ₅	OTHER
Before	2	.266M	.05M	.033M	- - -		
During	150	8.968M	1.575M	.792M	.033M		
After	3	.494M	.075M	.033M	TR		

Type gas increase: Gradual ☐ Sharp ☒Gas variation within zone: Steady ☒ Erratic ☐ Increasing ☐ Decreasing ☐CARBIDE HOLE RATIO: $\frac{\text{GRAMS}}{\text{READING}}$ X Min. in Peak = _____Sensitivity: Poor ☐ Fair ☐ Good ☒

FLUO: Mineral ☐ Even ☐ Spotty ☐
 None ☒ % in total sample _____
 Poor ☐
 Fair ☐ % in show lithology _____
 Good ☐ COLOR: _____

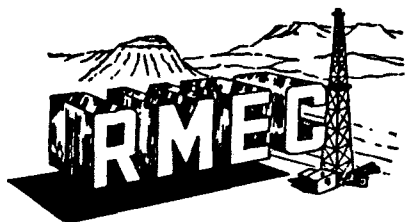
CUT: None ☒ Streaming
 Poor ☐ Slow ☐
 Fair ☐ Mod ☐
 Good ☐ Fast ☐

COLOR: _____

STAIN: None ☐ Poor ☒ Fair ☐ Good ☐ Live ☐ Dead ☒ Residue ☐ Even ☐ Spotty ☒ Lt. ☐ Dk. ☒POROSITY: Poor ☒ Fair ☐ Good ☐ Kind Intrxn-Fracture occ Vug

LITHOLOGY LS: crm-wh tan-ltbrn crpxln-micxln rtay-chk cln sl anhy sl chry ip fos
w/ blk dol mud filling in Ø dd oil stn SAMPLE QUALITY Good

NOTIFIED Art Moore @ 7:45 AM HRS. DATE: 1-7-87REMARKS Survey run befor sample cir. upZONE DESCRIBED BY Dave Meade



ROCKY MOUNTAIN GEO-ENGINEERING CO.

WELL LOGGING — CORE AND WATER ANALYSIS

2450 INDUSTRIAL BLVD.

PHONE 243-3044

GRAND JUNCTION, COLORADO 81501

COMPANY MERIDIAN OIL INC.WELL NO. 11-14 CHEROKEE FEDERALLOCATION SAN JUAN COUNTY, UTAH Sec 14, T37S, R23EZONE OF INTEREST NO. 2INTERVAL: From 5868 To 5875DRILL RATE: Abv 4.5 min/ft Thru 2.5 min/ft Below 3 min/ft

MUD GAS-CHROMATOGRAPH DATA

M=1000 ppm

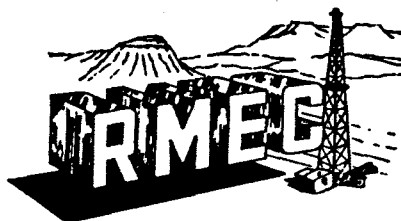
	TOTAL	C ₁	C ₂	C ₃	C ₄	C ₅	OTHER
Before	10	1.259M	.450M	.330M	.126M		
During	186	40.660M	6.250M	2.97M	1.26M		
After	10	1.52M	.525M	.396M	.126M		

Type gas increase: Gradual ☐ Sharp ☒Gas variation within zone: Steady ☒ Erratic ☐ Increasing ☐ Decreasing ☐CARBIDE HOLE RATIO: $\frac{\text{GRAMS}}{\text{READING}}$ X Min. in Peak = _____Sensitivity: Poor ☐ Fair ☐ Good ☒

FLUO: Mineral ☐ Even ☐ Spotty ☐
 None ☐ % in total sample 5%
 Poor ☒
 Fair ☐ % in show lithology 5%
 Good ☐ COLOR: dull yellow

CUT: None ☐ Streaming
 Poor ☒ Slow ☒
 Fair ☐ Mod ☐
 Good ☐ Fast ☐
 COLOR: yellow

STAIN: None ☐ Poor ☒ Fair ☐ Good ☐ Live ☒ Dead ☐ Residue ☐ Even ☐ Spotty ☐ Lt. ☒ Dk. ☐POROSITY: Poor ☒ Fair ☐ Good ☐ Kind PP Vug Ø & Tr PP Interxln ØLITHOLOGY LS: ltbrn-tan ltgy ip micxln-crpxln occ vfxln occ slty cln-slrg occ anhy incl
frm-hd tr fos SAMPLE QUALITY GoodNOTIFIED Art Moore @ 7:45 AM HRS. DATE: 1-8-87REMARKS Circulate out gas & samples at 5875'ZONE DESCRIBED BY Bill Nagel



ROCKY MOUNTAIN GEO-ENGINEERING CO.

WELL LOGGING — CORE AND WATER ANALYSIS

2450 INDUSTRIAL BLVD.

PHONE 243-3044

GRAND JUNCTION, COLORADO 81501

COMPANY MERIDIAN OIL INC.WELL NO. 11-14 CHEROKEE FEDERALLOCATION SAN JUAN COUNTY, UTAH Sec 14, T37S, R23EZONE OF INTEREST NO. 3INTERVAL: From 5875' To 5885'DRILL RATE: Abv 3 min/ft Thru 1.5 min/ft Below 5 min/ft

MUD GAS-CHROMATOGRAPH DATA

M=1000 ppm

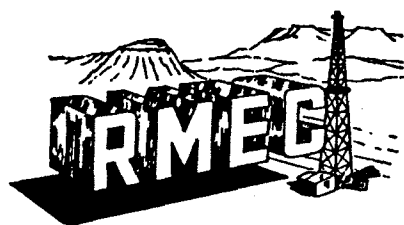
	TOTAL	C ₁	C ₂	C ₃	C ₄	C ₅	OTHER
Before	10	1.52M	.525M	.396M	.126M		
During	380	93.1M	14.375M	7.92M	2.52M		
After	40	3.04M	1.075M	.66M	.210M		

Type gas increase: Gradual ☐ Sharp ☒Gas variation within zone: Steady ☐ Erratic ☐ Increasing ☒ Decreasing ☐CARBIDE HOLE RATIO: $\frac{\text{GRAMS}}{\text{READING}}$ X Min. in Peak = _____Sensitivity: Poor ☐ Fair ☐ Good ☒

FLUO: Mineral ☐ Even ☐ Spotty ☐
 None ☐ % in total sample 20%
 Poor ☐
 Fair ☒ % in show lithology 25%
 Good ☐ COLOR: dull yellow

CUT: None ☐ Streaming
 Poor ☐ Slow ☐
 Fair ☒ Mod ☐
 Good ☐ Fast ☒
 COLOR: milky yellow

STAIN: None ☐ Poor ☐ Fair ☒ Good ☐ Live ☒ Dead ☐ Residue ☐ Even ☐ Spotty ☐ Lt. ☒ Dk. ☐POROSITY: Poor ☒ Fair ☐ Good ☐ Kind PP Vug Ø & PP Interxln-suc ØLITHOLOGY LS : ltgy-ltbrn tan micxln-crpxln occ vfxln occ sl slty cln-sl arg occ anhyincl frm-hd tr fos SAMPLE QUALITY GoodNOTIFIED ART MOORE @ 10:00 AM HRS. DATE: 1-8-87REMARKS Circulate out gas & samples at 5875'ZONE DESCRIBED BY Bill Nagel



ROCKY MOUNTAIN GEO-ENGINEERING CO.

WELL LOGGING — CORE AND WATER ANALYSIS

2450 INDUSTRIAL BLVD.

PHONE 243-3044

GRAND JUNCTION, COLORADO 81501

COMPANY MERIDIAN OIL INC.WELL NO. 11-14 CHEROKEE FEDERALLOCATION SAN JUAN COUNTY, UTAH Sec 14, T37S, R23EZONE OF INTEREST NO. 4INTERVAL: From 5888 To 5894DRILL RATE: Abv 4.5 min/ft Thru 2 min/ft Below 3.5 min/ft

MUD GAS-CHROMATOGRAPH DATA

M=1000 ppm

	TOTAL	C ₁	C ₂	C ₃	C ₄	C ₅	OTHER
Before	40	3.04M	1.04M	.66M	.21M		
During	150	19.38M	4.0M	2.475M	1.05M		
After	90	10.21M	2.375M	1.165M	.315M		

Type gas increase: Gradual ☐ Sharp ☒Gas variation within zone: Steady ☒ Erratic ☐ Increasing ☐ Decreasing ☐CARBIDE HOLE RATIO: GRAMS READING X Min. in Peak = _____Sensitivity: Poor ☐ Fair ☐ Good ☒

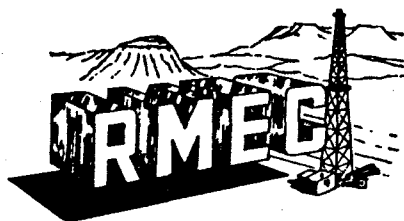
FLUO: Mineral ☐ Even ☒ Spotty ☐
 None ☐ % in total sample 30%
 Poor ☐
 Fair ☒ % in show lithology 25%
 Good ☐ COLOR: dul-bright yellow

CUT: None ☐ Streaming
 Poor ☐ Slow ☐
 Fair ☐ Mod ☐
 Good ☒ Fast ☒
 COLOR: milky yellow

STAIN: None ☐ Poor ☐ Fair ☒ Good ☐ Live ☒ Dead ☐ Residue ☐ Even ☐ Spotty ☐ Lt. ☒ Dk. ☐POROSITY: Poor ☐ Fair ☒ Good ☐ Kind PP Vug, Interxln, sucLITHOLOGY LS: ltbrn tan crpxln-micxln ip occ dol-sl anhy sl slty DOL: ltbrn micxln-vfxln sl lmy-anhy sl fos arg ipSAMPLE QUALITY GoodNOTIFIED Art Moore @ 7:45 AM HRS. DATE: 1-9-87

REMARKS _____

ZONE DESCRIBED BY Bill Nagel



ROCKY MOUNTAIN GEO-ENGINEERING CO.

WELL LOGGING — CORE AND WATER ANALYSIS

2450 INDUSTRIAL BLVD.

PHONE 243-3044

GRAND JUNCTION, COLORADO 81501

COMPANY MERIDIAN OIL INC.WELL NO. 11-14 CHEROKEE FEDERALLOCATION SAN JUAN COUNTY, UTAH Sec 14, T37S, R23EZONE OF INTEREST NO. 5INTERVAL: From 5896' To 5900'DRILL RATE: Abv 3.5 min/ft Thru 1.25 min/ft Below 2 min/ft

MUD GAS-CHROMATOGRAPH DATA

M=1000 ppm

	TOTAL	C ₁	C ₂	C ₃	C ₄	C ₅	OTHER
Before	90	10.21M	2.375M	1.165M	1.05M		
During	210	39.9M	11.75M	5.61M	2.1M		
After	60	10.26M	1.62M	.861M	.398M		

Type gas increase: Gradual ☐ Sharp ☒Gas variation within zone: Steady ☒ Erratic ☐ Increasing ☒ Decreasing ☐CARBIDE HOLE RATIO: $\frac{\text{GRAMS}}{\text{READING}}$ X Min. in Peak = _____Sensitivity: Poor ☐ Fair ☐ Good ☒

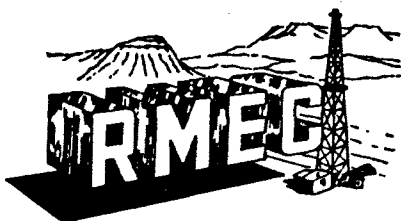
FLUO: Mineral ☐ Even ☒ Spotty ☐
 None ☐ % in total sample 30%
 Poor ☐
 Fair ☒ % in show lithology 25%
 Good ☐ COLOR: dull-bright yellow

CUT: None ☐ Streaming
 Poor ☐ Slow ☐
 Fair ☐ Mod ☐
 Good ☒ Fast ☒
 COLOR: milky yellow

STAIN: None ☐ Poor ☐ Fair ☒ Good ☐ Live ☒ Dead ☐ Residue ☐ Even ☐ Spotty ☐ Lt. ☒ Dk. ☐POROSITY: Poor ☐ Fair ☒ Good ☐ Kind PP Vug, Interxln, sucLITHOLOGY LS: ltbrn tan crpxln-micxln vfxln ip occ dol-sl anhy sl sltyDOLO: ltbrn micxln-vfxln sl lmy-anhy sl fosSAMPLE QUALITY GoodNOTIFIED Art Moore @ 7:45 AM HRS. DATE: 1-9-87

REMARKS _____

ZONE DESCRIBED BY Bill Nagel



ROCKY MOUNTAIN GEO-ENGINEERING CO.

WELL LOGGING — CORE AND WATER ANALYSIS

2450 INDUSTRIAL BLVD.

PHONE 243-3044

GRAND JUNCTION, COLORADO 81501

COMPANY MERIDIAN OIL INC.WELL NO. 11-141 CHEROKEE FEDERALLOCATION SAN JUAN COUNTY, UTAH Sec 14, T37S, R23EZONE OF INTEREST NO. 6INTERVAL: From 5902 To 5911DRILL RATE: Abv 2 min/ft Thru 1.25 min/ft Below 2.75 min/ft

MUD GAS-CHROMATOGRAPH DATA

M=1000 ppm

	TOTAL	C ₁	C ₂	C ₃	C ₄	C ₅	OTHER
Before	60	10.26M	1.62M	.821M	.398M		
During	225	45.608M	10.5M	6.6M	4.2M		
After	40	6.84M	1.08M	.55M	.30M		

Type gas increase: Gradual ☐ Sharp ☒Gas variation within zone: Steady ☒ Erratic ☐ Increasing ☐ Decreasing ☐CARBIDE HOLE RATIO: $\frac{\text{GRAMS}}{\text{READING}}$ X Min. in Peak = _____Sensitivity: Poor ☐ Fair ☐ Good ☒

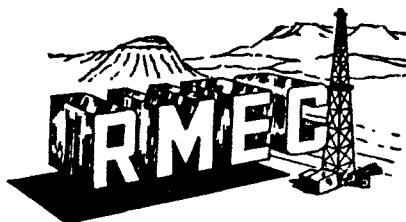
FLUO: Mineral ☐ Even ☒ Spotty ☐
 None ☐ % in total sample 30%
 Poor ☐
 Fair ☒ % in show lithology 25%
 Good ☐ COLOR: dull-bright yellow

CUT: None ☐ Streaming
 Poor ☐ Slow ☐
 Fair ☐ Mod ☐
 Good ☒ Fast ☒
 COLOR: dull-bright yellow

STAIN: None ☐ Poor ☐ Fair ☒ Good ☐ Live ☒ Dead ☐ Residue ☐ Even ☐ Spotty ☐ Lt. ☒ Dk. ☒POROSITY: Poor ☐ Fair ☒ Good ☐ Kind PP Vug, Interxln, sucLITHOLOGY LS: ltbrn tan crpxln-micxln vfxln ip occ dol-sl anhy sl sltyDOL: dkgy-ltbrn micxln-vfxln sl lmy-anhy sl fos SAMPLE QUALITY GoodNOTIFIED Art Moore @ 7:45 AM HRS. DATE: 1-9-87

REMARKS _____

ZONE DESCRIBED BY Bill Nagel



ROCKY MOUNTAIN GEO-ENGINEERING CO.

WELL LOGGING — CORE AND WATER ANALYSIS

2450 INDUSTRIAL BLVD.

PHONE 243-3044

GRAND JUNCTION, COLORADO 81501

COMPANY MERIDIAN OIL INC.
 WELL NO. 11-14 CHEROKEE FEDERAL
 LOCATION SAN JAUN COUNTY, UTAH Sec 14, T37S, R23E

ZONE OF INTEREST NO. 7INTERVAL: From 5918' To 5922'DRILL RATE: Abv 3 min/ft Thru 2 min/ft Below 3 min/ft

MUD GAS-CHROMATOGRAPH DATA

M=1000 ppm

	TOTAL	C ₁	C ₂	C ₃	C ₄	C ₅	OTHER
Before	40	6.84M	1.08M	.55M	.30M		
During	200	26.08M	6.5M	4.62M	2.1M		
After	85	11.08M	2.76M	1.96M	.89M		

Type gas increase: Gradual ☐ Sharp ☒Gas variation within zone: Steady ☒ Erratic ☐ Increasing ☐ Decreasing ☐CARBIDE HOLE RATIO: GRAMS
READING X Min. in Peak = _____Sensitivity: Poor ☐ Fair ☐ Good ☒

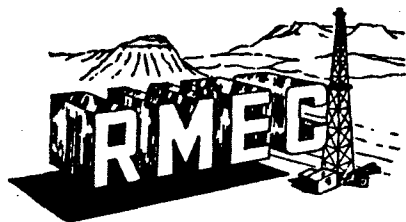
FLUO: Mineral ☐ Even ☒ Spotty ☐
 None ☐ % in total sample 25%
 Poor ☐
 Fair ☒ % in show lithology 25%
 Good ☐ COLOR: dull-bright yellow

CUT: None ☐ Streaming
 Poor ☐ Slow ☐
 Fair ☐ Mod ☐
 Good ☒ Fast ☒
 COLOR: yellow

STAIN: None ☐ Poor ☐ Fair ☒ Good ☐ Live ☒ Dead ☐ Residue ☐ Even ☐ Spotty ☐ Lt. ☒ Dk. ☒POROSITY: Poor ☐ Fair ☒ Good ☐ Kind PP Vug, Interxln, sucLITHOLOGY LS: ltbrn tan crpxln-vfxln occ dol sl-v anhy anhy incl sl sltyDOL: lt-dkbrn micxln-vfxln sl lmy sl-v anhy anhy incl SAMPLE QUALITY GoodNOTIFIED Art Moore @ 7:45 AM HRS. DATE: 1-9-87

REMARKS _____

ZONE DESCRIBED BY Bill Nagel



ROCKY MOUNTAIN GEO-ENGINEERING CO.

WELL LOGGING — CORE AND WATER ANALYSIS

2450 INDUSTRIAL BLVD.

PHONE 243-3044

GRAND JUNCTION, COLORADO 81501

COMPANY MERIDIAN OIL INC.
 WELL NO. 11-14 CHEROKEE FEDERAL
 LOCATION SAN JUAN COUNTY, UTAH Sec 14 T37S, R23E

ZONE OF INTEREST NO. 8INTERVAL: From 6085' To 6090'DRILL RATE: Abv 3.5 min/ft Thru 2 min/ft Below 3.5 min/ft

MUD GAS-CHROMATOGRAPH DATA

M=1000 ppm

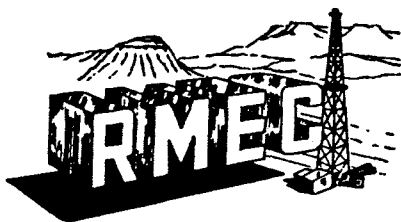
	TOTAL	C ₁	C ₂	C ₃	C ₄	C ₅	OTHER
Before	280	55.480M	13.0M	4.58M	2.52M		
During	840	95.760M	30.5M	19.14M	8.4M		
After		29.64M	8.5M	5.94M	2.52M		

Type gas increase: Gradual ☐ Sharp ☒Gas variation within zone: Steady ☒ Erratic ☐ Increasing ☐ Decreasing ☐CARBIDE HOLE RATIO: GRAMS
READING X Min. in Peak = _____ Sensitivity: Poor ☐ Fair ☐ Good ☒

FLUO: Mineral ☐ Even ☐ Spotty ☐
 None ☒ % in total sample _____
 Poor ☐
 Fair ☐ % in show lithology _____
 Good ☐ COLOR: _____

CUT: None ☐ Streaming
 Poor ☒ Slow ☒
 Fair ☐ Mod ☐
 Good ☐ Fast ☐
 COLOR: mlky white

STAIN: None ☒ Poor ☐ Fair ☐ Good ☐ Live ☐ Dead ☐ Residue ☐ Even ☐ Spotty ☐ Lt. ☐ Dk. ☐POROSITY: Poor ☐ Fair ☐ Good ☒ Kind Intxln-rare pp vugLITHOLOGY DOL: lt-dkbn micxln-vfxln gran rthy-sl slty ip calc ip sl anhy fos ip
frm-hdSAMPLE QUALITY goodNOTIFIED Art Moore @ 6:00 PM HRS. DATE: 1-10-87REMARKS spl had no vis flor or stain, very poor & rare residue ring cutZONE DESCRIBED BY Dave Meade



ROCKY MOUNTAIN GEO-ENGINEERING CO.

WELL LOGGING — CORE AND WATER ANALYSIS

2450 INDUSTRIAL BLVD.

PHONE 243-3044

GRAND JUNCTION, COLORADO 81501

COMPANY MERIDIAN OIL INC.WELL NO. 11-14 CHEROKEE FEDERALLOCATION SAN JUAN COUNTY, UTAH Sec 14, T37S, R23EZONE OF INTEREST NO. 9INTERVAL: From 6148' To 6154'DRILL RATE: Abv 3 min/ft Thru 1-1.5 min/ft Below 3 min/ft

MUD GAS-CHROMATOGRAPH DATA

M=1000 ppm

	TOTAL	C ₁	C ₂	C ₃	C ₄	C ₅	OTHER
Before	240	57.76M	11.0M	5.28M	1.68M		
During	915	83.6M	41.25M	26.4M	8.4M		
After	210	33.08M	11.5M	7.92M	2.52M		

Type gas increase: Gradual ☐ Sharp ☒Gas variation within zone: Steady ☒ Erratic ☐ Increasing ☐ Decreasing ☐CARBIDE HOLE RATIO: $\frac{\text{GRAMS}}{\text{READING}}$ X Min. in Peak = _____Sensitivity: Poor ☐ Fair ☐ Good ☒

FLUO: Mineral ☐ Even ☐ Spotty ☐ 5%
 None ☐ % in total sample _____
 Poor ☒
 Fair ☐ % in show lithology 20%
 Good ☐ COLOR: v fnt dul yel grn

CUT: None ☐ Streaming
 Poor ☒ Slow ☒
 Fair ☐ Mod ☐
 Good ☐ Fast ☐
 COLOR: milky white

STAIN: None ☐ Poor ☒ Fair ☐ Good ☐ Live ☒ Dead ☒ Residue ☐ Even ☐ Spotty ☒ Lt. ☐ Dk. ☒POROSITY: Poor ☐ Fair ☐ Good ☒ Kind IntxnLITHOLOGY DOL: lt-dkbrn-gybrn vfxln-occ micxln gran varg sl slty anhy calc occ fossome anhy fl mhdSAMPLE QUALITY goodNOTIFIED Cindy Crawley @ 8:00 AM HRS. DATE: 1-11-87REMARKS Sample had very faint-very poorly visual flor, trace dead oil stain, very few pieces cut wellZONE DESCRIBED BY Dave Meade

MERIDIAN OIL INC.
11-14 CHEROKEE FEDERAL

DST NUMBER: 1

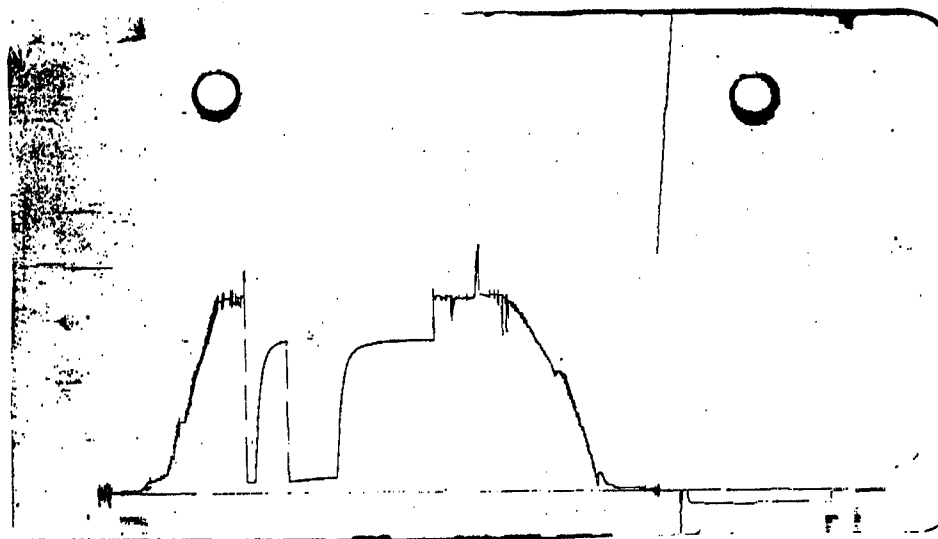
INTERVAL TESTED: 5860-5930

BHT: 138⁰

	PSI		TIME	
	TOP	BOTTOM		
Initial Hydrostatic:	2736	2812		
Initial Flow:	123-143	138-165	15	MIN.
Initial Shut In:	2145	2202	60	MIN.
Final Flow:	148-225	176-275	90	MIN.
Final Shut In:	2141	2186	180	MIN.
Final Hydrostatic:	2736	2806		

Remarks: IF: tool opened 3" blow, B.O.B. 1min, 16 psi 10 min; 28 psi 15 min. ISI: gas to surface 10 min, 1" blow 60 min, FF: B.O.B. immediately; 32 psi 2 min; 160 psi 85 min, max rate 148 MCF on 1/4" choke 5'-10' flare. FSI flared gas dead 30 min, no blow 180 min. Pipe reversed out, recovered gas cut mud (est) 400'±, top Rw 1.0 @65⁰ md1 Rw = 1.0 @65⁰ bottom Rw = none. Sample Chamber: total volume = 2100 cc recovered no oil, no water, 1000 cc mud, 2.6 ft³ gas. make up water Rw = 2.0 @65⁰ 2000 cl, Mud pit Rw = 1.5 @65⁰ 2800 cl, Sample Rw = 1.0 @65⁰ 4000 cl.

Chart:



MERIDIAN OIL, INC.
11-14 CHEROKEE FED.
SEC. 14, T37S, R23E
SAN JUAN CO. - UTAH

FORMATION TOPS				
	SAMPLE TOP	E-LOG TOP	TVD	SEA LEVEL DATUM
CUTLER	----	3078	3078	+2552
HERMOSA	4762	4740	4739	+ 890
UPPER ISMAY	5812	5804	5760	- 174
"A" SHALE	5964	5948	5895	- 318
LOWER ISMAY	5988	5995	5939	- 365
GOTHIC	6045	6047	5988	- 417
DESERT CREEK	6077	6076	6016	- 446
CHIMNEY ROCK	6166	6168	6102	- 538
AKAH	6193	6195	6127	- 565
TOTAL DEPTH	6232	6233	6162	- 604

GEOLOGIC SUMMARY
AND
ZONES OF INTEREST

The Meridian Oil, Inc.'s well 11-14 Cherokee Federal was located in NE/NW of Section 14, T37S, R23E and was directionally drilled to NW/NW of Section 14, T37S, R23E of San Juan County, Utah. This well spudded on December 26, 1986 in the upper Morrison Formation and reached a total depth of 6233' in the top of the Paradox Salt on January 11, 1986. This was a wildcat Ismay and Desert Creek test. Geology coverage began at 3300'.

CUTLER (3078' - 4740')

The Cutler Formation was composed of interbedded shale, siltstone and sandstone with occasional thin limestone beds. The shale was red, tan, green, brown, light-to-medium gray, soft-to-firm, blocky-to-platy and was occasionally sandy, silty and limy. The siltstone was tan, red, brown, medium gray, green, soft-to-firm, blocky-to-platy, argillaceous, calcareous and occasionally sandy. The sandstone was clear-to-frosted, very fine-to-fine grained, unconsolidated-to-medium cemented, medium-to-well sorted and subrounded-to-subangular. The Cutler contained no shows of interest.

HERMOSA (4740' - 5804')

The Hermosa consisted of interbedded limestone and shale with occasional thin siltstone, coal and anhydrite beds. The limestone was tan, gray, brown, firm-to-hard, blocky-to-platy, microcrystalline-to-cryptocrystalline and slightly-to-moderately argillaceous. The shale was medium-to-dark gray, tan-to-light gray, brown, black, firm, blocky-to-platy and occasionally limy, silty and carbonaceous. The anhydrite was white-to-translucent, soft-to-firm and occasionally crystalline. The coal was black, firm, blocky and brittle.

There were several gas shows noted in the Hermosa Formation. The first being at 5440'-5444' of 150 units coming from limestone with a trace of dead oil stain and 3% porosity. Two of the gas shows came from coals at 5489'-5490' of 98 units and at 5604'-5606' of 210 units. The fourth gas show occurred at 5566'-5576' of 85 units originating from a shaly limestone.

UPPER ISMAY (5804' - 5948')

The Upper Ismay was composed of interbedded limestone, dolomite and anhydrite. The limestone was light brown-to-tan, light gray, cryptocrystalline-to-very fine crystalline, firm-to-hard and occasionally dolomitic, slightly argillaceous and silty. The dolomite was light-to medium brown, occasionally dark brown, microcrystalline-to-very fine crystalline and occasionally limy and anhydritic. The anhydrite was white translucent, crystalline and soft-to-firm. In the Upper Ismay the shows were noted at the following intervals:

5868-5875' - 186 unit show with trace dull yellow fluorescence, slow milky cut, 3% porosity and 73% water saturation

5875'-5885' - 380 unit show with fair dull yellow fluorescence, slow milky cut, 5% porosity and 26% water saturation

5888'-5894' - 150 unit show with fair dull yellow fluorescence, fast milky yellow cut and 0% porosity

5896'-5900'- 210 unit show with fair dull-bright yellow fluorescence, fast milky yellow cut, 16% porosity and 38% water saturation

5902'-5911'- 225 unit gas show with fair dull-bright yellow fluorescence, fast milky cut, 6% porosity and 25% water saturation

5918'-5922'- 200 unit gas show with fair dull-bright yellow fluorescence, fast milky cut and 0% porosity

The Upper Ismay was separated from the Lower Ismay by the "A" Shale. This zone was black, firm-to-hard, carbonaceous and produced a 300 unit gas show at 5976'-5984'.

LOWER ISMAY (5995' - 6047')

The Lower Ismay consisted of interbedded limestone, dolomite and anhydrite. The limestone was light-to-medium gray, brown, cryptocrystalline-to-microcrystalline, slightly-to-moderately argillaceous, firm-to-hard, occasionally limy and anhydritic. The anhydrite was white-to-translucent, soft-to-firm and crystalline.

The Lower Ismay produced only two minor gas shows: The first, at 5996'-6004', was 160 units from a background of 105 units. (Because of hole conditions, the electric logs were not valid in this zone.) The second, at 6030'-6035', was 150 units with a background gas of 105 units and had 2% porosity and 95% water saturation.

The Desert Creek was separated from the Lower Ismay by the Gothic Shale which was black-to-medium gray, blocky-to-platy and carbonaceous, producing a 520 unit gas show.

DESERT CREEK (6076' - 6168')

The Desert Creek was composed of dolomite with occasional shale and anhydrite beds. The dolomite was brown-to-gray brown, microcrystalline-to-very fine crystalline, slightly-to-very argillaceous, firm-to-hard, occasionally silty, calcareous and anhydritic. The shale was medium-to-dark gray, black, blocky-to-platy, slightly silty and carbonaceous. The anhydrite was white-to-translucent, soft-to-firm and occasionally crystalline.

Several good gas shows in the Desert Creek are as follows: The first, 6085'-6090', was in a limestone and massive anhydrite with a gas show of 840 units from a background of 280 units, a porosity of 14% and a water saturation of 25%. The second gas show occurred at 6110'-6120' coming from a dolomite of 530 units from a background of 150 units and had 16% porosity and 29% water saturation. The last gas show was the largest, occurring at 6148'-6154', with 915 units from a background of 240 units. This show also came from a dolomite with a very faint, poor visual fluorescence and a trace of dead oil stain with 21% porosity and 13% water saturation.

CHIMNEY ROCK (6168' - 6195')

The Chimney Rock was predominantly shale with a few siltstone beds.

The shale was black, blocky-to-platy, slightly silty, soft-to-firm, and calcareous-to-dolomitic. The siltstone was dark gray brown, very argillaceous, firm, carbonaceous and occasionally dolomitic. The background gas increased to 550 units in the Chimney Rock.

AKAH (6195' - 6230')

The Akah was composed of interbedded shale, dolomite and anhydrite. The shale was black, blocky-to-platy, slightly silty, calcareous-to-dolomitic, carbonaceous, and soft-to-firm. The dolomite was light-to-medium gray, medium gray brown, argillaceous and occasionally anhydritic. The anhydrite was white, translucent, occasionally crystalline and soft-to-firm. Background gas dropped off from a high of 630 units to a low of 80 units at T.D.

The well was drilled two feet into the Paradox Salt for the total depth of 6232'.

~~CONFIDENTIAL~~

TRANSMITTAL LETTER

RECORD OF SHIPMENT OF CONFIDENTIAL INFORMATION

RECEIVED
MAR 02 1987

TO: Utah Dept. of Natural Resources
Division of Oil, Gas and Mining
355 W. North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
Attn: Ron Firth

FROM: C. L. Crawley
Name
Sr. Staff Geologist
Title
DATE: February 27, 1987
VIA: Mail

DIVISION OF
OIL, GAS & MINING

RE: All information pertains to the Cherokee Federal 11-14, San Juan Co.,
Utah, 14-37S-23E API 43-037-31290.

QUANTITY	DESCRIPTION
1	✓ Dipmeter - MSD
1	✓ Dipmeter - CSB
1	✓ Directional Survey
1	✓ Borehole Compensated Sonic
1	✓ Dual Laterolog/MSFL
1	✓ Formation Density/Compensated Neutron
1	✓ Dipmeter and Directional Raw Data
1	✓ RMGE - Final Report
1	✓ DST Report - #1 - Baker

INSTRUCTIONS: Please acknowledge receipt promptly by signing and returning the copy.

RECEIVED BY: _____ DATE: _____

REMARKS : All information pertains to the Cherokee Federal 11-14, San Juan Co.,
Utah, 14-37S-23E API 43-037-31290.

RECORD OF SHIPMENT OF CONFIDENTIAL INFORMATION

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE

(See other instructions on reverse side)

Form approved
Budget Bureau No. 1004-0137
Expires August 31, 1985

3

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐
b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. REVR. ☐

2. NAME OF OPERATOR

MERIDIAN OIL INC.

3. ADDRESS OF OPERATOR

P. O. Box 1855, Billings, MT 59103

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

At surface

NENW (810' FNL - 1550' FWL)

At top prod. interval reported below NWNW (606' FNL - 1250' FWL)

At total depth NWNW (561' FNL - 1184' FWL)

14. PERMIT NO.

43-037-31290

DATE ISSUED

DIVISION OF
OIL, GAS & MINING

MAR 02 1987

15. DATE SPUDDED

12-26-86

16. DATE T.D. REACHED

1-11-87

17. DATE COMPL. (Ready to prod.)

2-1-87

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*

5618' GL

19. ELEV. CASINGHEAD

5630' KB

20. TOTAL DEPTH, MD & TVD

6231'

21. PLUG, BACK T.D., MD & TVD

6027'

22. IF MULTIPLE COMPL., HOW MANY*

N/A

23. INTERVALS DRILLED BY

ROTARY TOOLS

X

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*

5893' - 5909' & 5871' - 5886' (U. Ismay)

25. WAS DIRECTIONAL SURVEY MADE

Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN

DLI/MSFL, FDC/CNL, BHC, SHDT

27. WAS WELL CORED

No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8	24#	2053'	11"	485 SX	None
5-1/2	17#	6231'	7-7/8"	670 SX	None

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
N/A					2-7/8	5824'	5816'

31. PERFORATION RECORD (Interval, size and number)

6151' - 6156' w/2 jspf

CIBP @ 6135'

6086' - 6091' w/2 jspf

CIBP @ 6030'

5893' - 5909' w/2 jspf

5871' - 5886' w/2 jspf

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
6151' - 6156'	625 gal 15% Hcl
6086' - 6091'	500 gal 15% Hcl
5893' - 5909'	2000 gal 15% Hcl
5871' - 5886'	1900 gal 15% Hcl

33. PRODUCTION

DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)				WELL STATUS (Producing or shut-in)	
N/A		Flowing				Shut-in (WO Gas Line)	
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	COND. BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
1-31-87	24	50/64"	→	52.5	990	26	18857:1
FLOW, TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	COND. BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	
110	--	→	52.5	990	26	45°F.	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

Shut In

TEST WITNESSED BY

Mike G. Raicevich

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED

TITLE Sr. Drilling Engineer

DATE

2/27/87

*(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, flowing and shut-in pressures, and recoveries):

FORMATION		TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
U. Ismay	5860'	5930'		DST #1 - Times: 15-60-90-180. BHT 138°F. No cushion. Rev. rcvry: GCM, est 400'± from charts. Sample Chmbr: (2100 cc vol) 900 psi, 2100 cc total vol, 0 oil, 0 wtr, 1000 cc mud, 2.6 cfg. HP 2736-2736; FP 123-143, 148-225; SIP 2145-2141.

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH
Entrada	800'	
Navajo	1015'	
Chinle	1950'	
Shinarump	2540'	
Cutler	2940'	
Hermosa	4740'	4731'
U. Ismay	5814'	5771'
"A" Shale	5956'	5903'
L. Ismay	5992'	5936'
Gothic	6047'	5988'
Desert Creek	6075'	6013'
Chimney Rock	6168'	6099'
Akah	6194'	6123'

CONFIDENTIAL INFORMATION

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE
(Other instructions on re-
verse side)

Form approved
Budget Bureau No. 1004-0135
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back a well in a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. U-46825	
2. NAME OF OPERATOR MERIDIAN OIL INC.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME N/A	
3. ADDRESS OF OPERATOR P. O. Box 1855, Billings, MT 59103		7. UNIT AGREEMENT NAME N/A	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface NENW (810' FNL - 1550' FWL)		8. FARM OR LEASE NAME Cherokee-Federal	
14. PERMIT NO. 43-037-31290/31367		9. WELL NO. 11-14 and 22-14	
15. ELEVATIONS (Show whether DF, RT, GR, etc.) 5630' KB		10. FIELD AND POOL, OR WILDCAT Cherokee	
		11. SEC., T., R., M., OR B.L. AND SURVEY OR AREA Section 14-37S-23E	
		12. COUNTY OR PARISH San Juan	
		13. STATE Utah	

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	NTL-4A <input checked="" type="checkbox"/>
(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Permission to flare gas on an emergency basis is requested for the above named facility. All gas is being sold to Western Gas Processors at the present time, with no flaring. The process equipment is equipped with hi-lo valves to shut in the units in the event of high line pressure or low pressure. There may be a failure that would result in gas being flared, therefore a request to flare is being made.

18. I hereby certify that the foregoing is true and correct

SIGNED <u>W. H. Brauer</u>	TITLE <u>Production Superintendent</u>	DATE <u>4/27/88</u>
(This space for Federal or State office use)		
APPROVED BY _____	TITLE _____	DATE _____
CONDITIONS OF APPROVAL, IF ANY:		

*See Instructions on Reverse Side



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

well files

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

June 6, 1988

Meridian Oil Inc.
P.O. Box 1855
Billings, Montana 59103

Gentlemen:

Re: Request for Gas Venting or Flaring Approval

The Division of Oil, Gas And Mining has received several sundry notices requesting standing approval for emergency gas venting or flaring for the following wells in San Juan County:

Havasus Federal #22-19, Sec. 19, T. 38S, R. 24E
Havasus Federal #41-24, Sec. 24, T. 38S, R. 24E
Havasus Federal #42-24, Sec. 24, T. 38S, R. 24E
Cherokee Federal #11-14, Sec. 14, T. 37S, R. 23E
Cherokee Federal #22-14, Sec. 14, T. 37S, R. 23E
Cherokee Federal #33-14, Sec. 14, T. 37S, R. 23E
Cherokee Federal #43-14, Sec. 14, T. 37S, R. 23E

Your request was reviewed with Board of Oil, Gas and Mining during the informal briefing session of their May 26, 1988 Board meeting.

The Board determined that your request for standing approval to vent or flare gas from the subject wells on an emergency basis shall not be granted. It was the opinion of the Board that in cases of emergency venting or flaring, you must immediately notify the Division and properly report the volumes and duration of any such venting or flaring. The Division shall review all emergency venting or flaring of gas to ensure that such action is unavoidable and adheres to principles of proper conservation.

In this situation, the Board has granted the Division administrative authority to allow gas venting or flaring from the subject wells for verifiable emergencies. If, in the opinion of the Division staff, any reported venting or flaring is not justified, the Division will inform the Board and further action may be taken in accordance with the rules and orders of the Board.

Page 2
Meridian Oil Inc.
June 6, 1988

The factors which the Division may consider in reviewing emergency gas venting or flaring are:

1. The disruption of gas transportation and the reasons for such disruption.
2. The ability of Meridian to restrict production as long as correlative rights are protected and without causing waste.
3. The potential for any other conservation oriented alternative to gas venting or flaring.

If you have any further questions concerning this action, please contact John Baza at the letterhead address and telephone number. Thank you for your consideration in this matter.

Best regards,



Dianne R. Nielson
Director

JRB
cc: R. J. Firth
Well files
0458T-50-51

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*
(Other instructions on re-
verse side)

Suspense SLS-11-25-88
Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL ☐ GAS WELL ☒ OTHER ☐

2. NAME OF OPERATOR
MERIDIAN OIL INC.

3. ADDRESS OF OPERATOR
P. O. Box 1855, Billings, MT 59103

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.
See also space 17 below.)
At surface
NENW (810' FNL - 1550' FWL)

RECEIVED
AUG 25 1988
DIVISION OF
OIL & GAS REVENUE

5. LEASE DESIGNATION AND SERIAL NO.
W-46825

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
N/A

7. UNIT AGREEMENT NAME
N/A

8. FARM OR LEASE NAME
Cherokee-Federal

9. WELL NO.
11-14

10. FIELD AND POOL, OR WILDCAT
Cherokee

11. SEC., T., R., M., OR BLM. AND
SURVEY OR AREA
Section 14-37S-23E

12. COUNTY OR PARISH
San Juan

13. STATE
Utah

14. PERMIT NO.
43-037-31290

15. ELEVATIONS (Show whether pr. ht. or, etc.)
5630' KB

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANE <input type="checkbox"/>
(Other) <input type="checkbox"/>	

SUBSEQUENT REPORT OF:

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
(Other) <input type="checkbox"/>	NTL 4-A <input checked="" type="checkbox"/>

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Well will be flaring at the rate of 100 mcfpd during shut down of Western Gas Processors Kachina Gas Plant 8/23/88 for 5 days (Lower Ismay)

18. I hereby certify that the foregoing is true and correct

SIGNED W. J. Brown

TITLE Production Superintendent

DATE 8/23/88

(This space for Federal or State office use)

APPROVED BY _____
CONDITIONS OF APPROVAL, IF ANY:

TITLE _____

DATE _____

BLM (3), UOGM (3), File (1)

*See Instructions on Reverse Side

SCHLUMBERGER

DIRECTIONAL SURVEY

14-375-23E

COMPANY MERIDIAN OIL INC.
WELL CHEROKEE FEDERAL #11 -14
43-037-31290 PGW
FIELD WILDCAT
COUNTRY SAN JUAN COUNTY, UTAH, USA
RUN ONE

DATE LOGGED 13 - JAN - 87

~~OPERATIONS DEPT. FILE COPY~~

~~DO NOT REMOVE~~

TIGHT HOLE

REFERENCE

DSD.017708

RECEIVED

JUL 27 1992

DIVISION OF
OIL GAS & MINING

START OF SURVEY IS CASING AT 2048

TIE IN INFORMATION PROVIDED BY CLIENT

NORTH 500

REF DSD.017708

SCALE = 1/100 IN/FT

400

300

200

100

0

-100

-200

SOUTH -300

-500

-400

-300

-200

-100

0

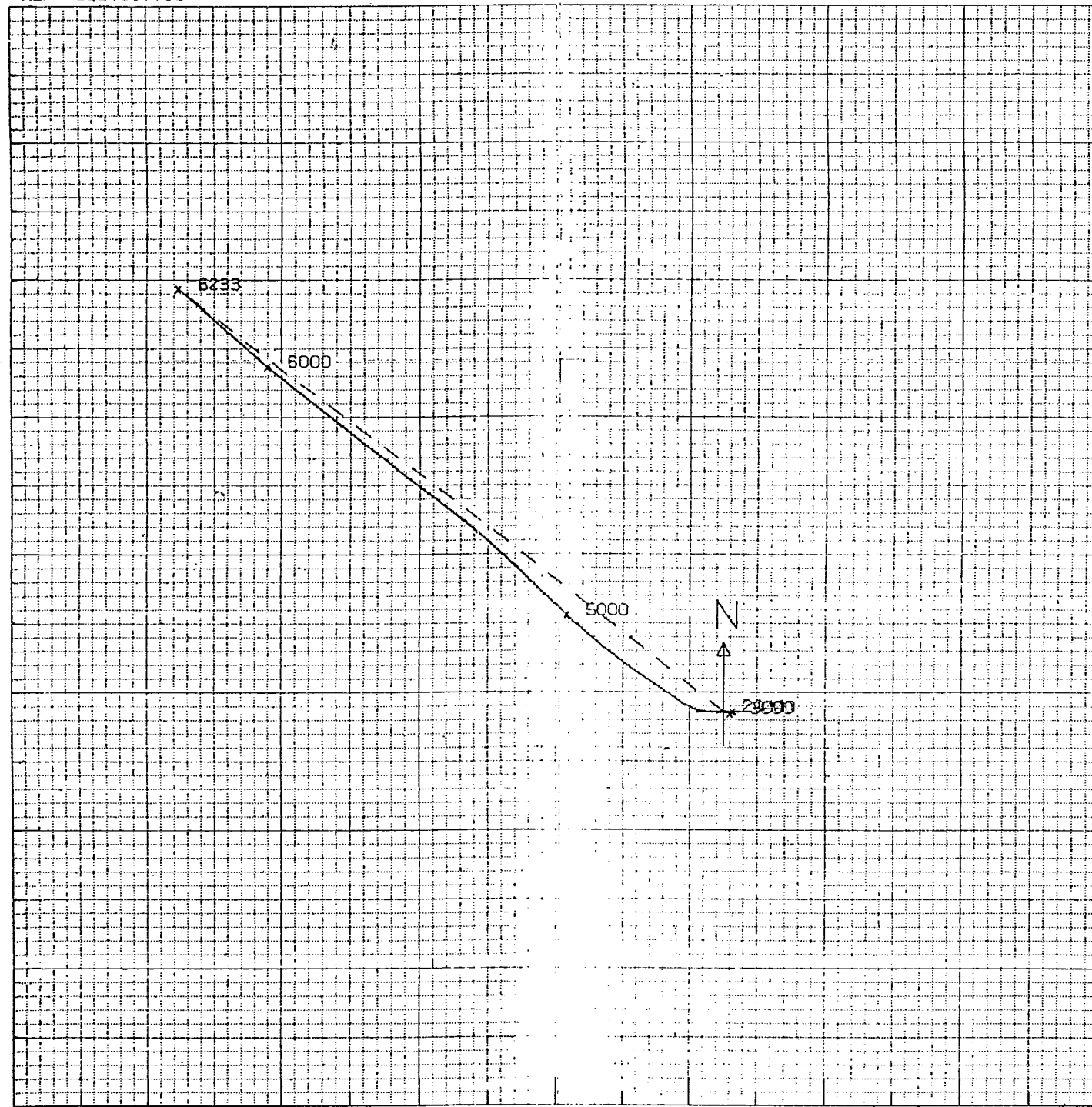
100

200

300

WEST

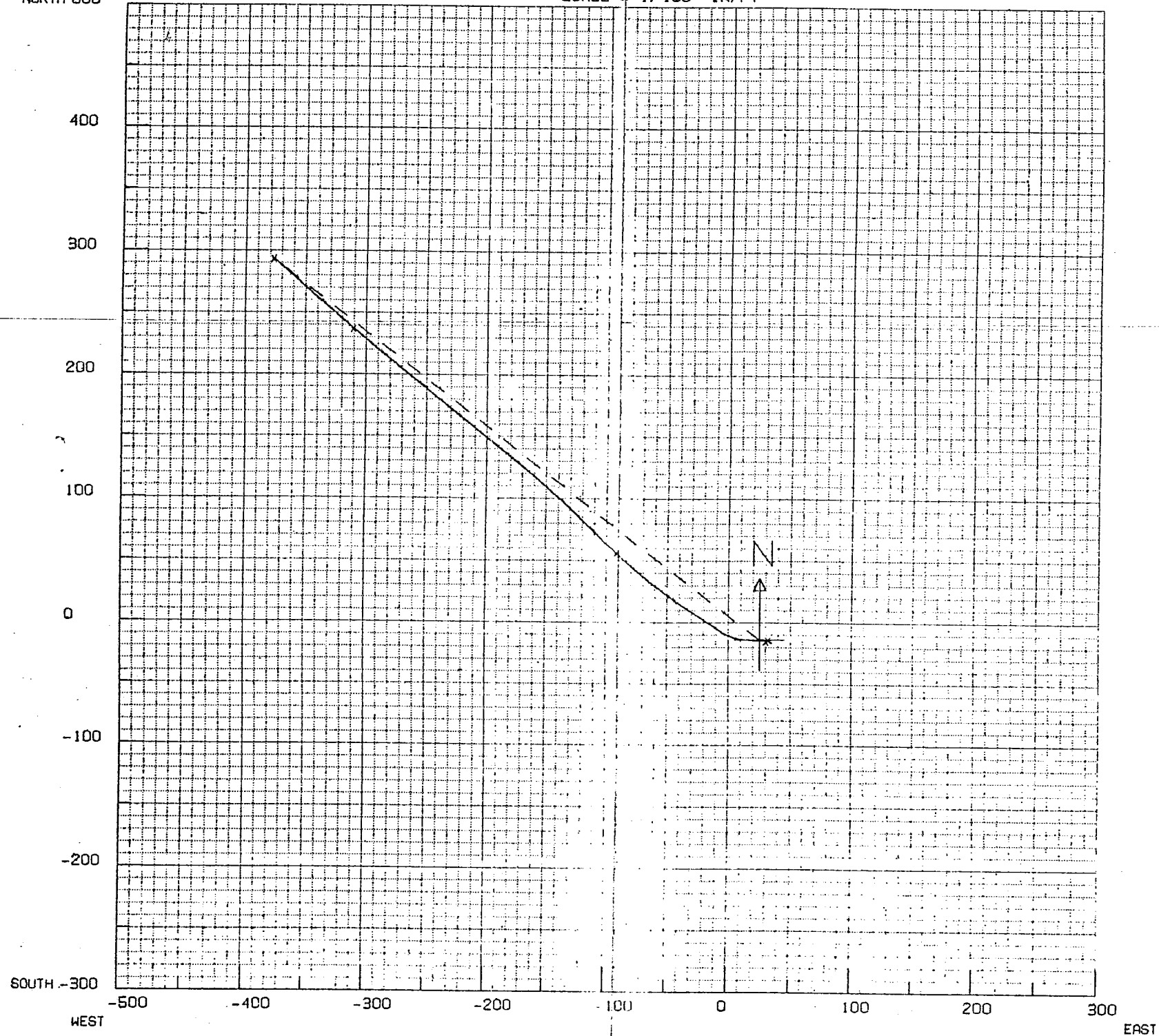
EAST

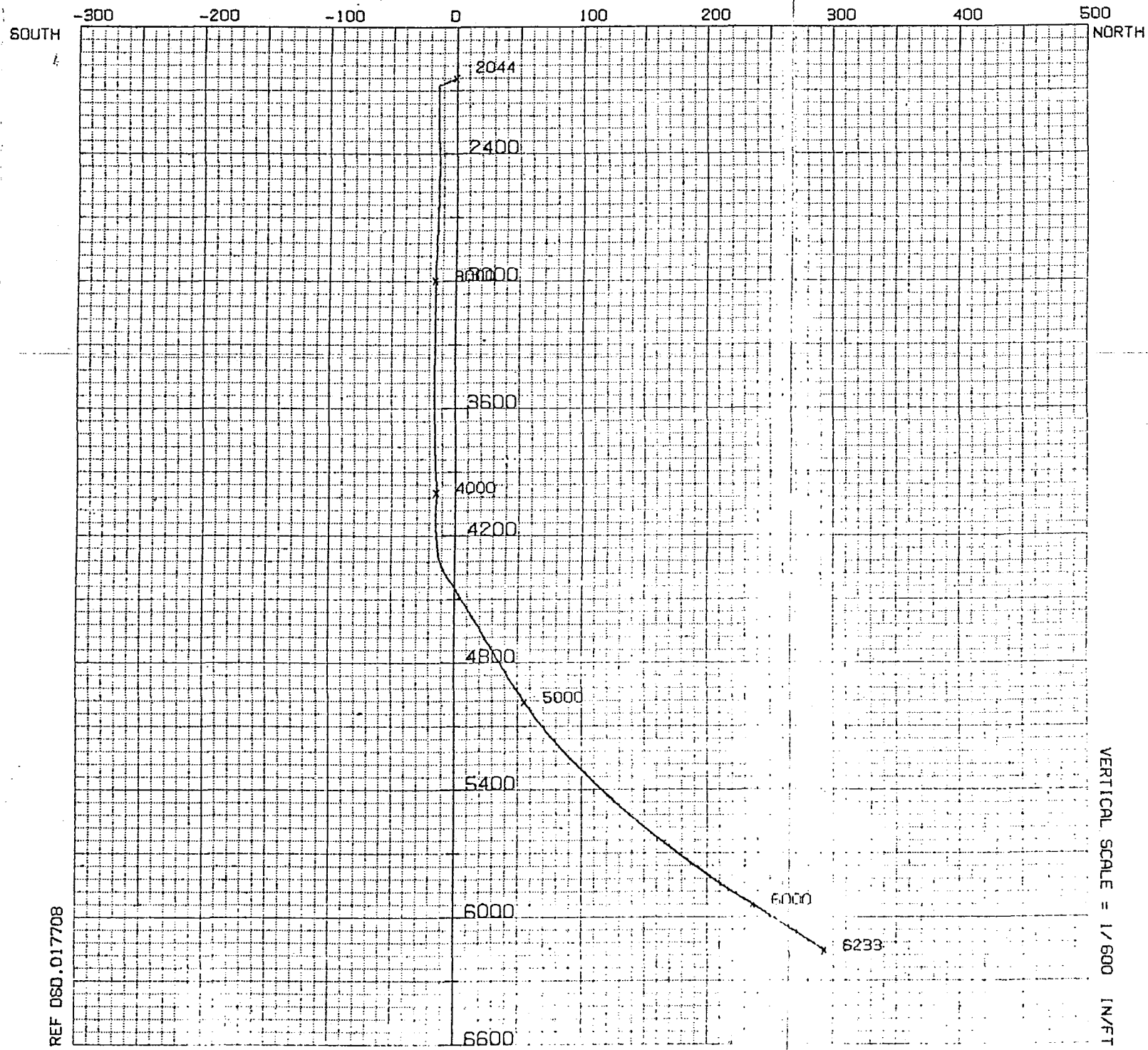


NORTH 500

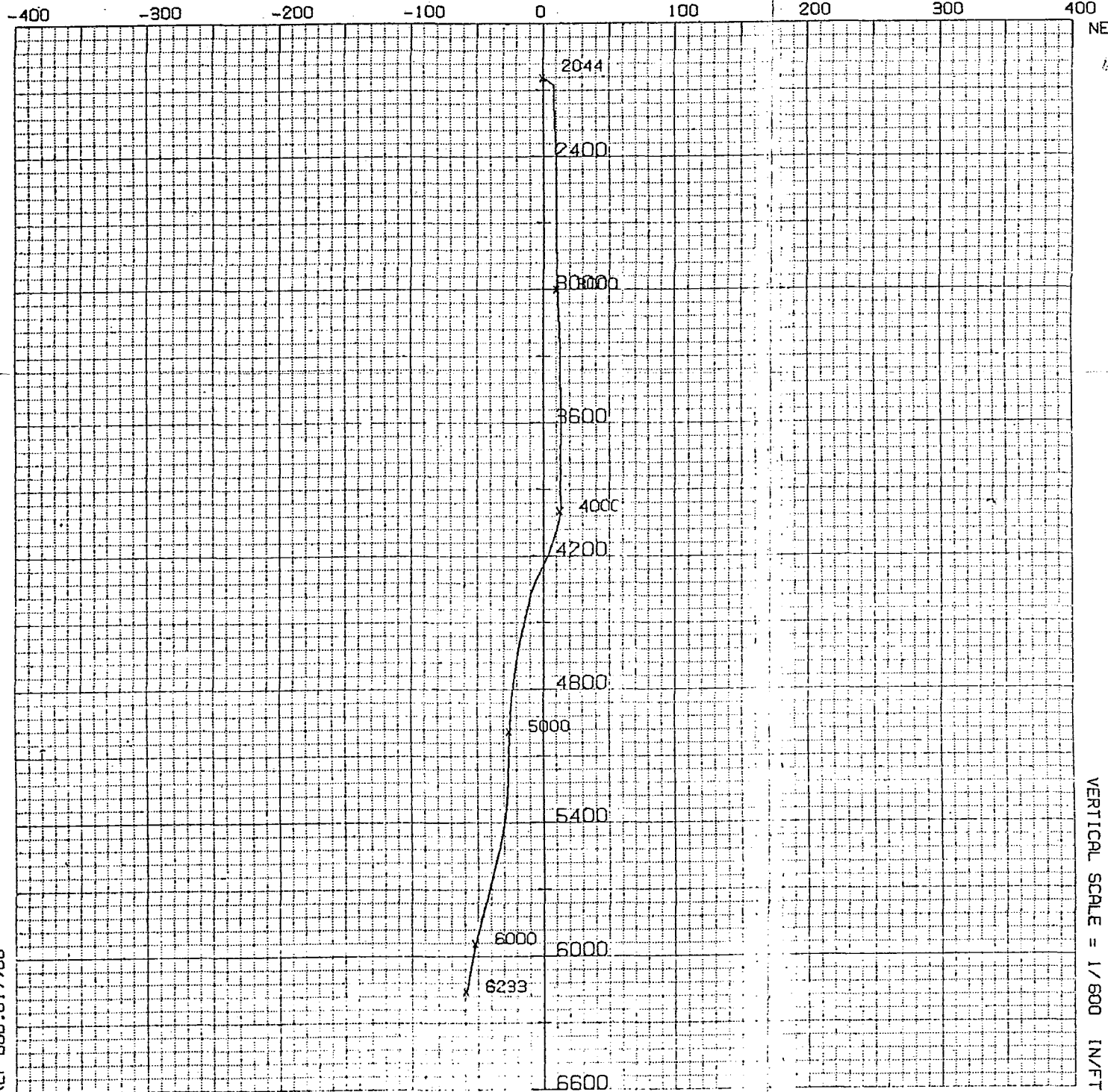
REF DSD.017708

SCALE = 1/100 IN/FT





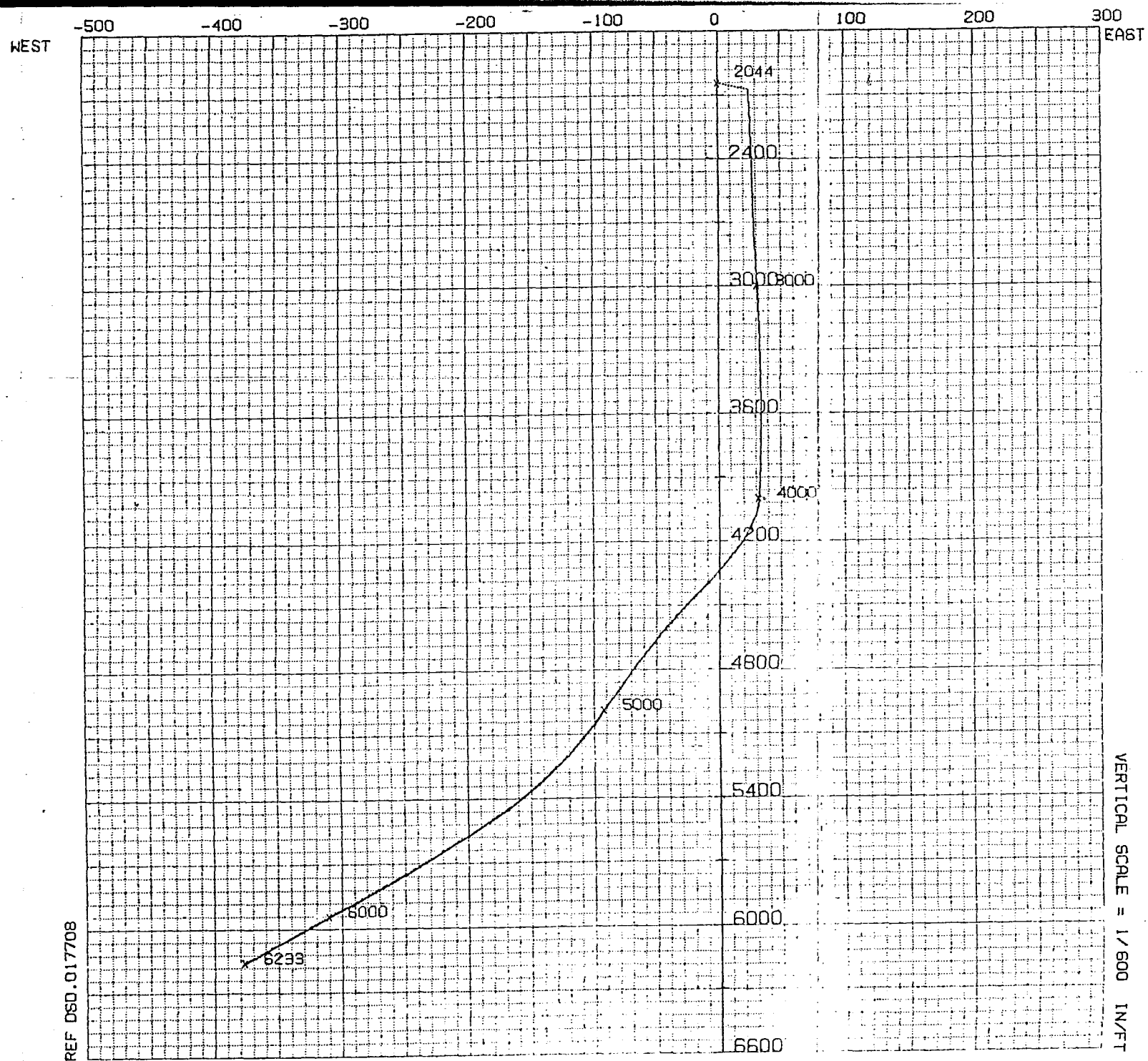
SW



PROJECTION ON VERTICAL PLANE NE - SW

SCALED IN VERTICAL DEPTHS

HORIZ SCALE = 1/100 IN/FT



PROJECTION ON VERTICAL PLANE EAST - WEST

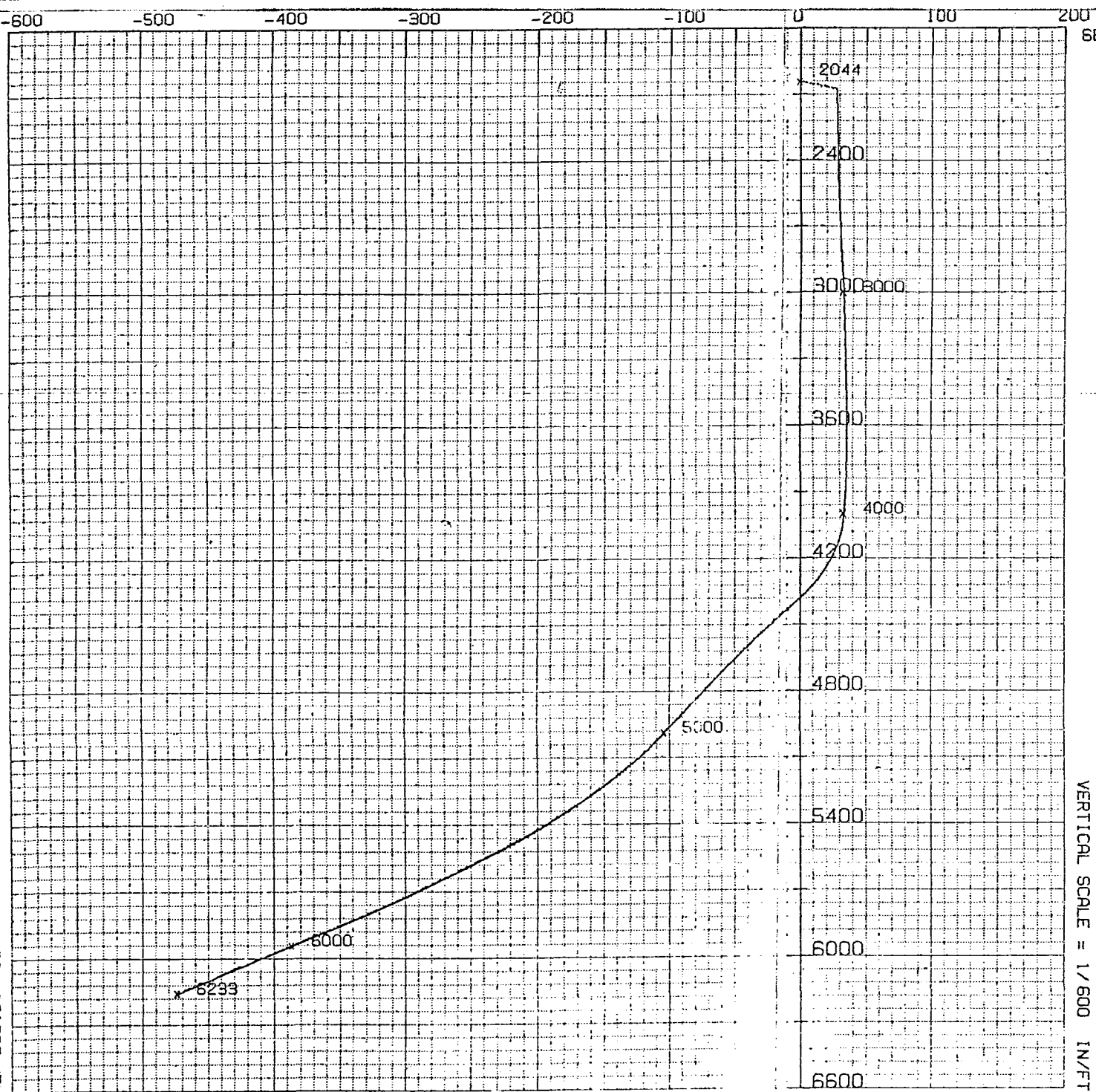
SCALED IN VERTICAL DEPTHS

HORIZ SCALE = 1/100 IN/FT

NW

SE

REF DSD.017708



DIRECTIONAL SURVEY

COMPANY : MERIDIAN OIL INC.
 WELL : CHEROKEE FEDERAL #11
 FIELD : WILDCAT
 COUNTRY : SAN JUAN COUNTY, UTAH, USA
 RUN : ONE
 DATE LOGGED : 13 - JAN - 87
 REFERENCE : DSD.017708

START OF SURVEY IS CASING AT 2048

TIE IN INFORMATION PROVIDED BY CLIENT

REF	DSD.017708					PAGE	1		
MEAS.	DEPTH	DEVIATION	AZIMUTH	TRUE	COORDINATES			DOG-LEG	
FT	DEGREES	DEGREES	DEGREES	VERTICAL	+ NORTH	+ EAST	COURSE	SEVERITY	
				DEPTH	- SOUTH	- WEST	LENGTH		DEG/100FT
				FT			FT		
2044.0	0.5		329	2043.7	-14.1	25.1	28.8	1.5	
2064.0	0.3		21	2063.7	-14.0	25.0	28.7	1.5	
2075.5	0.2		50	2075.2	-14.0	25.0	28.7	1.5	
2080.0	0.2		60	2079.7	-13.9	25.0	28.7	1.2	
2100.0	0.2		34	2099.7	-13.9	25.1	28.7	0.4	
2120.0	0.3		81	2119.7	-13.9	25.2	28.8	0.4	
2140.0	0.3		85	2139.7	-13.9	25.3	28.9	0.4	
2160.0	0.4		90	2159.7	-13.9	25.4	29.0	0.0	
2180.0	0.4		100	2179.7	-14.0	25.6	29.1	0.3	
2200.0	0.4		96	2199.7	-14.0	25.7	29.3	0.6	
2220.0	0.4		81	2219.7	-14.0	25.9	29.4	0.6	
2240.0	0.4		55	2239.7	-13.9	26.0	29.5	0.9	
2260.0	0.3		54	2259.7	-13.9	26.1	29.5	0.7	
2280.0	0.3		60	2279.7	-13.8	26.2	29.6	0.6	
2300.0	0.3		86	2299.7	-13.8	26.3	29.6	0.9	
2320.0	0.3		90	2319.7	-13.8	26.4	29.7	0.3	
2340.0	0.3		81	2339.7	-13.8	26.5	29.8	0.0	
2360.0	0.3		69	2359.7	-13.7	26.6	29.9	0.4	
2380.0	0.4		62	2379.7	-13.7	26.7	30.0	1.0	
2400.0	0.3		55	2399.7	-13.6	26.8	30.1	1.7	
2420.0	0.2		34	2419.7	-13.6	26.8	30.1	0.2	
2440.0	0.1		95	2439.7	-13.5	26.9	30.1	1.1	
2460.0	0.2		145	2459.7	-13.6	26.9	30.1	0.7	
2480.0	0.2		157	2479.7	-13.6	26.9	30.2	0.5	
2500.0	0.3		154	2499.7	-13.7	27.0	30.3	0.6	
2520.0	0.4		144	2519.7	-13.8	27.0	30.4	0.7	
2540.0	0.5		137	2539.7	-13.9	27.1	30.5	0.9	
2560.0	0.4		112	2559.7	-14.0	27.2	30.6	2.4	
2580.0	0.3		119	2579.7	-14.1	27.3	30.8	0.5	
2600.0	0.3		119	2599.7	-14.2	27.4	30.9	0.2	
2620.0	0.2		118	2619.7	-14.2	27.5	31.0	0.4	
2640.0	0.2		108	2639.7	-14.2	27.6	31.0	0.0	
2660.0	0.3		105	2659.7	-14.3	27.7	31.1	0.6	
2680.0	0.4		116	2679.7	-14.3	27.8	31.2	1.7	
2700.0	0.4		153	2699.7	-14.4	27.9	31.4	3.7	
2720.0	0.3		137	2719.7	-14.5	27.9	31.5	0.9	
2740.0	0.4		129	2739.7	-14.6	28.0	31.6	0.5	
2760.0	0.5		126	2759.7	-14.7	28.2	31.7	0.4	
2780.0	0.5		127	2779.7	-14.8	28.3	31.9	0.0	
2800.0	0.6		124	2799.7	-14.9	28.5	32.1	0.6	
2820.0	0.6		111	2819.7	-15.0	28.6	32.3	0.6	
2840.0	0.6		105	2839.7	-15.0	28.9	32.5	0.0	
2860.0	0.6		105	2859.7	-15.1	29.1	32.8	0.3	
2880.0	0.7		110	2879.7	-15.2	29.3	33.0	0.4	
2900.0	0.7		115	2899.7	-15.3	29.5	33.2	0.4	
2920.0	0.7		109	2919.7	-15.3	29.7	33.5	0.5	
2940.0	0.7		104	2939.7	-15.4	29.9	33.7	0.0	

REF DSD.017708

MEAS. DEPTH	DEVIATION DEGREES	AZIMUTH DEGREES	TRUE VERTICAL DEPTH FT	COORDINATES		COURSE LENGTH FT	DOG-LEG SEVERITY DEG/100FT
				NORTH	EAST		
				SOUTH	WEST		
2960.0	0.6	98	2959.7	-15.5	30.2	33.9	0.8
2980.0	0.6	92	2979.7	-15.5	30.4	34.1	0.6
3000.0	0.5	91	2999.7	-15.5	30.6	34.3	0.0
3020.0	0.6	94	3019.7	-15.5	30.7	34.4	1.2
3040.0	0.6	94	3039.7	-15.5	30.9	34.6	0.5
3060.0	0.6	90	3059.7	-15.5	31.2	34.8	0.5
3080.0	0.6	84	3079.7	-15.5	31.4	35.0	0.5
3100.0	0.5	81	3099.7	-15.5	31.6	35.1	0.2
3120.0	0.6	84	3119.7	-15.4	31.7	35.3	0.8
3140.0	0.7	89	3139.7	-15.4	32.0	35.5	0.9
3160.0	0.5	86	3159.7	-15.4	32.2	35.7	2.0
3180.0	0.5	89	3179.7	-15.4	32.4	35.8	0.7
3200.0	0.5	97	3199.7	-15.4	32.5	36.0	1.2
3220.0	0.4	102	3219.7	-15.4	32.7	36.2	0.6
3240.0	0.4	110	3239.7	-15.5	32.9	36.3	0.0
3260.0	0.3	108	3259.7	-15.5	33.0	36.4	0.4
3280.0	0.3	113	3279.7	-15.5	33.1	36.5	0.1
3300.0	0.3	105	3299.7	-15.6	33.2	36.7	0.4
3320.0	0.3	108	3319.7	-15.6	33.3	36.8	0.2
3340.0	0.3	99	3339.7	-15.6	33.4	36.9	0.7
3360.0	0.3	107	3359.7	-15.7	33.5	37.0	0.5
3380.0	0.3	125	3379.7	-15.7	33.6	37.1	0.4
3400.0	0.3	121	3399.7	-15.8	33.7	37.2	0.7
3420.0	0.3	122	3419.7	-15.8	33.8	37.4	0.6
3440.0	0.4	130	3439.7	-15.9	33.9	37.5	1.3
3460.0	0.4	120	3459.7	-16.0	34.0	37.6	0.5
3480.0	0.4	113	3479.7	-16.0	34.2	37.7	0.0
3500.0	0.3	102	3499.7	-16.1	34.3	37.8	0.5
3520.0	0.2	97	3519.7	-16.1	34.4	37.9	0.7
3540.0	0.2	44	3539.7	-16.1	34.4	38.0	0.3
3560.0	0.1	56	3559.7	-16.0	34.5	38.0	1.1
3580.0	0.1	48	3579.7	-16.0	34.5	38.0	0.5
3600.0	0.1	9	3599.7	-16.0	34.5	38.0	0.6
3620.0	0.0	240	3619.7	-16.0	34.5	38.0	0.6
3640.0	0.3	255	3639.7	-15.9	34.4	37.9	1.1
3660.0	0.3	241	3659.7	-16.0	34.3	37.9	0.6
3680.0	0.3	237	3679.7	-16.1	34.3	37.8	0.9
3700.0	0.3	257	3699.7	-16.1	34.2	37.8	0.8
3720.0	0.2	304	3719.7	-16.1	34.1	37.7	3.0
3740.0	0.2	333	3739.7	-16.1	34.0	37.6	1.4
3760.0	0.3	312	3759.7	-16.0	33.9	37.5	0.7
3780.0	0.4	313	3779.7	-15.9	33.9	37.4	0.7
3800.0	0.3	301	3799.7	-15.8	33.8	37.3	0.4
3820.0	0.5	310	3819.7	-15.7	33.6	37.1	0.9
3840.0	0.5	304	3839.7	-15.6	33.5	37.0	2.2
3860.0	0.5	310	3859.7	-15.5	33.4	36.8	0.8
3880.0	0.6	322	3879.7	-15.4	33.2	36.6	0.9

REF DSD.017708

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MEAS.	DEVIATION	AZIMUTH	TRUE	COORDINATES	COURSE	DOG-LEG
DEPTH	DEGREES	DEGREES	VERTICAL		LENGTH	SEVERITY
FT			DEPTH	+ NORTH + EAST	FT	DEG/100FT
			FT	- SOUTH - WEST		
3900.0	0.7	328	3899.7	-15.2	33.1	0.7
3920.0	0.7	329	3919.7	-15.0	33.0	0.3
3940.0	0.8	331	3939.7	-14.8	32.9	0.6
3960.0	0.8	326	3959.7	-14.5	32.7	0.4
3980.0	0.8	299	3979.7	-14.3	32.5	3.2
4000.0	1.0	265	3999.7	-14.3	32.2	2.1
4020.0	1.5	252	4019.7	-14.4	31.8	3.8
4040.0	2.3	250	4039.6	-14.6	31.2	3.5
4060.0	3.0	257	4059.6	-14.8	30.3	3.2
4080.0	3.6	262	4079.6	-15.0	29.2	3.5
4100.0	4.1	269	4099.5	-15.2	27.9	2.7
4120.0	4.5	271	4119.5	-15.2	26.4	3.1
4140.0	4.9	274	4139.4	-15.1	24.8	2.7
4160.0	5.4	276	4159.3	-14.9	23.0	2.9
4180.0	5.8	276	4179.2	-14.7	21.0	2.9
4200.0	6.3	276	4199.1	-14.5	18.9	2.7
4220.0	6.8	277	4219.0	-14.2	16.6	3.6
4240.0	7.3	276	4238.8	-13.9	14.2	4.1
4260.0	7.8	277	4258.7	-13.7	11.6	3.1
4280.0	8.3	278	4278.5	-13.3	8.8	2.7
4300.0	8.8	283	4298.3	-12.7	5.9	4.4
4320.0	9.4	289	4318.0	-11.9	2.8	6.2
4340.0	9.8	293	4337.7	-10.6	-0.3	2.5
4360.0	10.2	294	4357.4	-9.2	-3.5	5.8
4380.0	10.6	305	4377.1	-7.5	-6.6	3.0
4400.0	10.8	305	4396.7	-5.3	-9.6	7.7
4420.0	11.1	306	4416.4	-3.2	-12.8	7.0
4440.0	11.1	304	4436.0	-1.0	-16.0	2.2
4460.0	10.9	303	4455.6	1.1	-19.2	1.6
4480.0	10.8	303	4475.3	3.1	-22.4	1.4
4500.0	10.6	303	4494.9	5.1	-25.5	1.4
4520.0	10.5	302	4514.6	7.1	-28.6	1.3
4540.0	10.4	303	4534.2	9.1	-31.6	1.3
4560.0	10.3	303	4553.9	11.1	-34.6	1.7
4580.0	10.2	303	4573.6	13.0	-37.6	0.7
4600.0	10.0	305	4593.3	14.9	-40.5	1.0
4620.0	9.9	305	4613.0	16.9	-43.4	0.8
4640.0	9.8	306	4632.7	18.8	-46.2	0.7
4660.0	9.7	306	4652.4	20.8	-48.9	1.2
4680.0	9.7	306	4672.1	22.8	-51.7	5.7
4700.0	9.5	307	4691.8	24.8	-54.4	2.5
4720.0	9.4	306	4711.6	26.8	-57.0	2.0
4740.0	9.5	307	4731.3	28.8	-59.6	1.3
4760.0	9.4	307	4751.0	30.7	-62.2	2.3
4780.0	9.2	311	4770.8	32.7	-64.8	3.1
4800.0	9.3	309	4790.5	34.7	-67.3	0.5
4820.0	9.2	309	4810.2	36.7	-69.8	1.6

EXACT RADIAL OF CHARTER METHOD

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MEAS. DEPTH FT	DEVIATION DEGREES	AZIMUTH DEGREES	TRUE VERTICAL DEPTH FT	COORDINATES * NORTH * * SOUTH *	* EAST * * WEST *	COURSE LENGTH FT	DOG-LEG SEVERITY DEG/100FT
4840.0	9.1	310	4830.0	38.7	-72.3	82.0	0.9
4860.0	9.2	309	4849.7	40.8	-74.8	85.2	0.6
4880.0	9.1	310	4869.5	42.8	-77.2	88.3	1.7
4900.0	9.1	310	4889.2	44.8	-79.6	91.4	0.3
4920.0	9.2	310	4909.0	46.9	-82.1	94.5	1.3
4940.0	9.2	311	4928.7	48.9	-84.5	97.7	0.7
4960.0	9.3	311	4948.5	51.1	-86.9	100.8	1.6
4980.0	9.3	312	4968.2	53.2	-89.3	104.0	0.8
5000.0	9.5	312	4987.9	55.4	-91.8	107.2	0.5
5020.0	9.5	312	5007.6	57.6	-94.2	110.4	1.4
5040.0	9.6	313	5027.4	59.8	-96.7	113.7	1.3
5060.0	9.8	312	5047.1	62.1	-99.1	117.0	5.9
5080.0	10.1	314	5066.8	64.4	-101.7	120.4	1.9
5100.0	10.4	313	5086.5	66.9	-104.3	123.9	2.1
5120.0	10.8	314	5106.1	69.4	-106.9	127.5	3.9
5140.0	11.1	313	5125.8	72.0	-109.7	131.3	1.2
5160.0	11.5	314	5145.4	74.8	-112.5	135.1	1.4
5180.0	11.7	313	5165.0	77.5	-115.4	139.1	1.6
5200.0	12.0	314	5184.5	80.4	-118.4	143.1	1.7
5220.0	12.3	313	5204.1	83.3	-121.5	147.3	2.5
5240.0	12.6	313	5223.6	86.2	-124.6	151.5	3.8
5260.0	13.0	312	5243.1	89.3	-127.9	155.9	3.2
5280.0	13.3	313	5262.6	92.4	-131.2	160.4	2.9
5300.0	13.6	312	5282.2	95.5	-134.6	165.1	2.0
5320.0	14.0	312	5301.5	98.7	-138.2	169.8	1.9
5340.0	14.3	312	5320.9	102.0	-141.8	174.6	2.5
5360.0	14.5	311	5340.2	105.2	-145.5	179.6	1.5
5380.0	14.8	311	5359.6	108.5	-149.4	184.6	1.6
5400.0	15.0	311	5378.9	111.9	-153.2	189.7	2.8
5420.0	15.4	310	5398.2	115.2	-157.3	195.0	2.9
5440.0	15.8	309	5417.5	118.6	-161.4	200.3	2.3
5460.0	16.2	309	5436.7	122.1	-165.7	205.8	2.5
5480.0	16.6	308	5455.9	125.6	-170.1	211.5	2.1
5500.0	17.0	307	5475.0	129.1	-174.7	217.3	2.8
5520.0	17.5	308	5494.1	132.8	-179.4	223.2	2.4
5540.0	17.9	308	5513.2	136.5	-184.2	229.3	2.2
5560.0	18.2	308	5532.2	140.3	-189.1	235.5	2.0
5580.0	18.5	308	5551.2	144.1	-194.1	241.6	1.9
5600.0	18.8	307	5570.1	148.0	-199.2	248.2	1.8
5620.0	19.0	308	5589.1	152.0	-204.3	254.7	2.0
5640.0	19.2	308	5608.0	156.0	-209.5	261.2	1.6
5660.0	19.4	308	5626.8	160.1	-214.6	267.8	1.0
5680.0	19.5	309	5645.7	164.3	-219.8	274.4	1.2
5700.0	19.6	308	5664.6	168.4	-225.0	281.1	1.5
5720.0	19.8	309	5683.4	172.6	-230.3	287.8	2.4
5740.0	20.0	308	5702.2	176.8	-235.7	294.6	2.0
5760.0	20.2	309	5721.0	181.1	-241.1	301.5	1.5

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MEAS. DEPTH	DEVIATION DEGREES	AZIMUTH DEGREES	TRUE VERTICAL DEPTH FT	COORDINATES		COURSE LENGTH FT	DOG-LEG SEVERITY DEG/100FT
				+ NORTH	+ EAST		
				- SOUTH	- WEST		
5780.0	20.5	309	5739.7	185.4	-246.5	308.5	1.0
5800.0	20.7	309	5758.4	189.8	-252.0	315.5	1.4
5820.0	20.9	308	5777.1	194.3	-257.5	322.6	1.7
5840.0	21.1	308	5795.8	198.7	-263.2	329.8	1.4
5860.0	21.3	309	5814.5	203.2	-268.8	337.0	1.6
5880.0	21.7	309	5833.1	207.8	-274.6	344.3	3.2
5900.0	22.0	309	5851.6	212.4	-280.4	351.7	2.1
5920.0	22.3	309	5870.2	217.2	-286.2	359.3	2.0
5940.0	22.7	309	5888.6	222.0	-292.2	366.9	1.5
5960.0	22.8	310	5907.1	226.8	-298.2	374.7	1.0
5980.0	22.6	310	5925.5	231.8	-304.2	382.4	2.3
6000.0	22.5	309	5944.0	236.6	-310.1	390.1	0.5
6020.0	22.3	309	5962.5	241.5	-316.0	397.7	2.1
6040.0	22.3	311	5981.0	246.4	-321.8	405.3	1.0
6060.0	22.2	311	5999.5	251.3	-327.5	412.8	4.0
6080.0	22.1	311	6018.0	256.2	-333.3	420.4	2.6
6100.0	22.0	310	6036.6	261.0	-339.0	427.9	1.7
6120.0	22.0	311	6055.1	265.9	-344.7	435.3	2.3
6140.0	21.9	311	6073.7	270.7	-350.4	442.8	3.8
6160.0	22.0	311	6092.2	275.6	-356.0	450.2	1.8
6180.0	21.8	311	6110.8	280.5	-361.7	457.7	2.4
6200.0	21.7	310	6129.4	285.3	-367.3	465.1	0.8
6220.0	21.6	309	6147.9	290.0	-372.9	472.5	0.7
6233.0	21.6	309	6160.0	293.1	-376.7	477.2	0.0

REF DSD.017708

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BOTTOM HOLE LOCATION	
COURSE LENGTH	477.2 FT
COURSE AZIMUTH	307.9 DEGREES
MEASURED DEPTH	6233.0 FT
TRUE VERTICAL DEPTH	6160.0 FT
DISTANCE NORTH	293.1 FT
DISTANCE WEST	376.7 FT
EXACT RADIUS OF CURVATURE METHOD	

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

JAN 26 1995

LOT 145.1

FORM APPROVED
Budget Bureau No. 1004-0135
Expires March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS, GAS & MINING

Do not use this form for proposals to drill or to deepen or re-entry to a different reservoir.

Use "APPLICATION FOR PERMIT-" for such proposals.

5. Lease Designation and Serial No.
OS 11-14-125

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

D. J. SIMMONS COMPANY LTD. PARTNERSHIP

3. Address and Telephone No.

P. O. BOX 1469, FARMINGTON, NM 87499

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

810' FNL & 1550' FWL SEC. 14 - T37S-R23E

6. If Indian, Allottee or Tribe Name
N/A

7. If Unit or CA, Agreement Designation
N/A

8. Well Name and No. CHEROKEE
FEDERAL 11-14

9. API Well No. 3129000
43037

10. Field and Pool, or Exploratory Area
CHEROKEE

11. County or Parish, State
SAN JUAN COUNTY, UTAH

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☐ Notice of Intent

☒ Subsequent Report

☐ Final Abandonment Notice

TYPE OF ACTION

☐ Abandonment

☐ Recompletion

☐ Plugging Back

☐ Casing Repair

☐ Altering Casing

☒ Other Change of
Operator

☐ Change of Plans

☐ New Construction

☐ Non-Routine Fracturing

☐ Water Shut-Off

☐ Conversion to Injection

☐ Dispose Water
(Note: Report results of multiple completion on Well
Completion or Recompletion Report and Log form.)

13. Described Proposed or Completed Operations (Clearly state all pertinent details and give pertinent dates including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*
Please be advised that effective November 1, 1994, D. J. SIMMONS CO. LTD. PARTNERSHIP will be operator of the Cherokee Federal 11-14; NW/4 of Section 14 - T37S-R23E; San Juan County, Utah; and is responsible for the operations conducted in the subject well.

D. J. SIMMONS CO. LTD. PARTNERSHIP IS RESPONSIBLE UNDER THE TERMS AND CONDITIONS
OF THE LEASE FOR OPERATIONS CONDUCTED ON THE LEASED LANDS OR PORTIONS THEREOF.

BOND COVERAGE FOR THIS WELL IS PROVIDED BY BLM BOND NO. 9009293. FORMER OPERATOR
WAS MERIDIAN OIL INC.

14. I hereby certify that the foregoing is true and correct.

Signed

Title

Date

(This space for Federal or State office use)

Approved

By

Condition of Approval, if any:

Associate District Manager

Date

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States
any false, fictitious or fraudulent statement or representations as to any matter within its jurisdiction.

D. J. Simmons Company Ltd. Partnership
Well No. 11-14
Sec. 14, T. 37 S., R. 23 E.
San Juan County, Utah
Lease U-46825

CONDITIONS OF APPROVAL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Be advised that D. J. Simmons Company Ltd. Partnership is considered to be the operator of the above wells and is responsible under the terms and conditions of the lease for the operations conducted on the leased lands.

Bond coverage for this well is provided by UT1002 (Principle - D. J. Simmons Company Ltd. Partnership) via surety consent as provided for in 43 CFR 3104.2.

This office will hold the aforementioned operator and bond liable until the provisions of 43 CFR 3106.7-2 continuing responsibility are met.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

FEB 10 1995

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

5. Lease Designation and Serial No.

U-46825

6. If Indian, Allottee or Tribe Name

N/A

SUBMIT IN TRIPLICATE

7. If Unit or CA, Agreement Designation

N/A

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

INTEGRITY FINANCIAL

3. Address and Telephone No.

c/o Petroco, Inc.; P. O. Box 1622; Roosevelt, Utah 84066

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

810' FNL & 1550' FWL SEC. 14 - T37S-R23E

8. Well Name and No.

Federal 11-14

9. API Well No.

3131600

10. Field and Pool, or Exploratory Area

CHEROKEE

11. County or Parish, State

San Juan County, Utah

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent
☒ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other Change of Operator

- ☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Please be advised that effective November 1, 1994, INTEGRITY FINANCIAL will be Operator of the Cherokee Federal 11-14; SE¼ of Section 14 - T37S-R23E; San Juan County, Utah; and is responsible for the operations conducted in the subject well.

INTEGRITY FINANCIAL IS RESPONSIBLE UNDER THE TERMS AND CONDITIONS OF THE LEASE FOR OPERATIONS CONDUCTED ON THE LEASED LANDS OR PORTIONS THEREOF.

BOND COVERAGE FOR THIS WELL IS PROVIDED BY BLM BOND NO. 9009293. FORMER OPERATOR WAS MERIDIAN OIL INC.

14. I hereby certify that the foregoing is true and correct

Signature [Signature]
(This space for Federal or State office use)

Title Agent

Date

1-17-95
FEB 7 1995

Associate District Manager

Approved by /s/ WILLIAM C. STRINGER

Title

Date

Conditions of approval, if any:

CONDITIONS OF APPROVAL ATTACHED

The Oil & Gas Asset **CLEARINGHOUSE**

A Texas Corporation

February 23, 1995

Utah Division of Oil, Gas & Mining
Dept. of Natural Resources & Energy
3 Triad Center #350
Salt Lake City, Utah 84180-1203

Attn: Lisha Cordova

RE: Federal Lease USA U-46825
Federal Lease USA U-40440
San Juan County, Utah

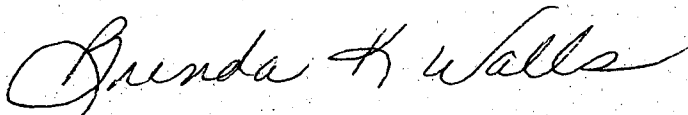
Dear Ms. Cordova:

Enclosed please find four (4) copies of Sundry Notices and Reports on Wells, Forms 3160-5, for the above referenced Federal Leases in San Juan County, Utah which name D. J. Simmons Company Limited Partnership as Operator.

Please review these forms and update your files accordingly. Thank you very much for your assistance in this matter and please contact me if there is any problem or question about this transfer.

Very truly yours,

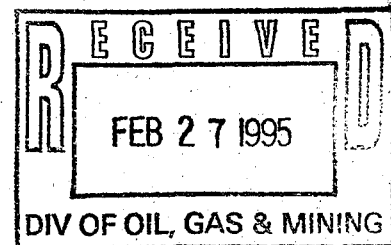
THE OIL & GAS ASSET CLEARINGHOUSE, INC.



Brenda K. Walls
Land Administrator

Enclosures

Sale 108*145



MERIDIAN OIL

March 6, 1995

State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203

RE: Change of Operator

Gentlemen:

Effective November 1, 1994 Meridian Oil Inc. resigned as operator of the following wells:

11-14 Cherokee Federal, API #4303731290
22-14 Cherokee Federal, API #4303731367
33-14 Cherokee Federal, API #4303731316
43-14 Cherokee Federal, API #4303731364

The new operator of the above listed properties is D. J. Simmons Company, LTD.
Partnership.

Yours truly,



Maralene Spawn
Supervisor, Volume Administration

Division of Oil, Gas and Mining
OPERATOR CHANGE WORKSHEET

Routing:

1	<u>LFC 7-PL</u>	✓
2	<u>LWP 8-SJ</u>	✓
3	<u>BTSS 9-FILE</u>	
4	<u>VLC</u>	✓
5	<u>RJF</u>	✓
6	<u>LWP</u>	✓

Attach all documentation received by the division regarding this change.
 Initial each listed item when completed. Write N/A if item is not applicable.

- ☒ Change of Operator (well sold) ☐ Designation of Agent
☐ Designation of Operator ☐ Operator Name Change Only

(MERIDIAN TO INTEGRITY APRV 2-7-95)

The operator of the well(s) listed below has changed (EFFECTIVE DATE: 11-1-94)

TO (new operator) INTEGRITY FINANCIAL
 (address) C/O PETROCO INC
PO BOX 1622
ROOSEVELT UT 84066
 phone (801) 722-3000
 account no. N 7155(A)

FROM (former operator) MERIDIAN OIL INC
 (address) PO BOX 3209
ENGLEWOOD CO 80155-3209
D.J. SIMMONS COMPANY LTD
9035 S 700 E
SANDY UT 84070-2418
C/O MARK DOLAR
(801)561-3121
N0225 (MERIDIAN TO DJ SIMMONS APRV BY BLM 1-23-95)
 phone (303) 930-9419
 account no. N 7230

Well(s) (attach additional page if needed):

Name: <u>CHEROKEE FED 11-14/ISMY</u>	API: <u>43-037-31290</u>	Entity: <u>10694</u>	Sec <u>14</u> Twp <u>37S</u> Rng <u>23E</u>	Lease Type: <u>U46825</u>
Name: <u>CHEROKEE FED 22-14/ISMY</u>	API: <u>43-037-31367</u>	Entity: <u>10694</u>	Sec <u>14</u> Twp <u>37S</u> Rng <u>23E</u>	Lease Type: <u>"</u>
Name: <u>CHEROKEE FED 33-14/ISMY</u>	API: <u>43-037-31316</u>	Entity: <u>10757</u>	Sec <u>14</u> Twp <u>37S</u> Rng <u>23E</u>	Lease Type: <u>U40440</u>
Name: <u>CHEROKEE FED 43-14/ISMY</u>	API: <u>43-037-31364</u>	Entity: <u>10757</u>	Sec <u>14</u> Twp <u>37S</u> Rng <u>23E</u>	Lease Type: <u>"</u>
Name: _____	API: _____	Entity: _____	Sec _____ Twp _____ Rng _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec _____ Twp _____ Rng _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec _____ Twp _____ Rng _____	Lease Type: _____

OPERATOR CHANGE DOCUMENTATION

- 1 1. (Rule R615-8-10) Sundry or other legal documentation has been received from former operator (Attach to this form). (Rec'd 1-27-95) (Rec'd 2-13-95) (Rec'd 3-6-95)
- 2 2. (Rule R615-8-10) Sundry or other legal documentation has been received from new operator (Attach to this form). (Rec'd 1-26-95/DJ Simmons) (Rec'd 2-10-95/Integrity)
- N/A 3. The Department of Commerce has been contacted if the new operator above is not currently operating any wells in Utah. Is company registered with the state? (yes/no) ____ If yes, show company file number: _____
- 4 4. (For Indian and Federal Wells ONLY) The BLM has been contacted regarding this change (attach Telephone Documentation Form to this report). Make note of BLM status in comments section of this form. Management review of Federal and Indian well operator changes should take place prior to completion of steps 5 through 9 below.
- 5 5. Changes have been entered in the Oil and Gas Information System (Wang/IBM) for each well listed above. (1-30-95/DJ Simmons) (2-16-95/Integrity)
- Sup 6. Cardex file has been updated for each well listed above. 2-7-95
- Sup 7. Well file labels have been updated for each well listed above. 2-7-95
- 8 8. Changes have been included on the monthly "Operator, Address, and Account Changes" memo for distribution to State Lands and the Tax Commission. (1-30-95/DJ Simmons) (2-16-95/Integrity)
- 9 9. A folder has been set up for the Operator Change file, and a copy of this page has been placed there for reference during routing and processing of the original documents.

ENTITY REVIEW

- ☒ 1. (Rule R615-8-7) Entity assignments have been reviewed for all wells listed above. Were entity changes made? (yes/no) (If entity assignments were changed, attach copies of Form 6, Entity Action Form).
- ☒ 2. State Lands and the Tax Commission have been notified through normal procedures of entity changes.

BOND VERIFICATION (Fee wells only)

- ☒ 1. (Rule R615-3-1) The new operator of any fee lease well listed above has furnished a proper bond.
2. A copy of this form has been placed in the new and former operators' bond files.
3. The former operator has requested a release of liability from their bond (yes/no) . Today's date 19 . If yes, division response was made by letter dated 19 .

LEASE INTEREST OWNER NOTIFICATION RESPONSIBILITY

- ☒ 1. (Rule R615-2-10) The former operator/lessee of any fee lease well listed above has been notified by letter dated 19 , of their responsibility to notify any person with an interest in such lease of the change of operator. Documentation of such notification has been requested.
- ☒ 2. Copies of documents have been sent to State Lands for changes involving State leases.

FILMING

- ☒ 1. All attachments to this form have been microfilmed. Date: March 27 1995.

FILING

1. Copies of all attachments to this form have been filed in each well file.
2. The original of this form and the original attachments have been filed in the Operator Change file.

COMMENTS

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801

Page 1 of 1

MONTHLY OIL AND GAS PRODUCTION REPORT

OPERATOR NAME AND ADDRESS:

C/O PETROCO, INC.
 INTEGRITY FINANCIAL
 PO BOX 1622
 ROOSEVELT UT 84066

UTAH ACCOUNT NUMBER: N7155

REPORT PERIOD (MONTH/YEAR): 6 / 97

AMENDED REPORT ☐ (Highlight Changes)

Well Name			Producing Zone	Well Status	Days Oper	Production Volumes		
API Number	Entity	Location				OIL(BBL)	GAS(MCF)	WATER(BBL)
FEDERAL 14-8								
4301530061	00437	26S 07E 8	MNKP					
FEDERAL 12-17								
4301530062	00438	26S 07E 17	MNKP					
ENERGETICS FED 21-20								
4301530036	00439	26S 07E 20	MNKP					
RIVER JUNCTION 11-18								
4304731316	09705	09S 20E 18	GRRV					
CHEROKEE FEDERAL 11-14								
4303731290	10694	37S 23E 14	ISMY			446825		
CHEROKEE FEDERAL 22-14								
4303731367	10694	37S 23E 14	ISMY			"		
CHEROKEE FEDERAL 33-14								
4303731316	10757	37S 23E 14	ISMY			440440		
CHEROKEE FEDERAL 43-14								
4303731364	10757	37S 23E 14	ISMY			"		
SHANE FEDERAL 1								
4303731406	10999	37S 24E 7	ISMY					
TOTALS								

COMMENTS:

I hereby certify that this report is true and complete to the best of my knowledge.

Date: _____

Name and Signature: _____

Telephone Number: _____

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Dolar Oil Properties, L.C.

3. Address and Telephone No.

935 E. South Union Avenue, Suite D-202, Midvale, UT 84047

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

810' FNL & 1550" FWL Sec. 14 - T37S-R23E

5. Lease Designation and Serial No.

U-46825

6. If Indian, Allottee or Tribe Name

N/A

7. If Unit or CA, Agreement Designation

N/A

8. Well Name and No.

Cherokee Federal 11-14

9. API Well No.

3131600

10. Field and Pool, or Exploratory Area

Cherokee

11. Country or Parish, State

San Juan County,
Utah

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent
☒ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other Change of Operator

- ☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

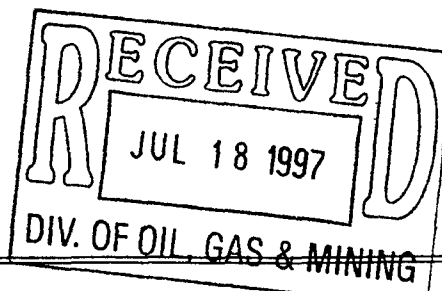
(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Please be advised that effective July 1, 1997, DOLAR OIL PROPERTIES, L.C. will be Operator of the Cherokee Federal 11-14; SE $\frac{1}{4}$ of Section 14 - T37S-R23E; San Juan County, Utah; and is responsible for the operations conducted in the subject well.

DOLAR OIL PROPERTIES, L.C. IS RESPONSIBLE UNDER THE TERMS AND CONDITIONS OF THE LEASE FOR OPERATIONS CONDUCTED ON THE LEASED LANDS OR PORTIONS THEREOF.

BOND COVERAGE FOR THIS WELL IS PROVIDED BY BLM BOND NO. UT1082. FORMER OPERATOR WAS INTEGRITY FINANCIAL.



14. I hereby certify that the foregoing is true and correct

Signed

Title Managing Member

Date

(This space for Federal or State office use)

Approved by

/s/ Brad D. Palmer

Title

Assistant Field Manager,

Date

JUL 16 1997

Conditions of approval, if any:

CONDITIONS OF APPROVAL ATTACHED

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Dolar Oil Properties, L.C.
Well No. Cherokee Federal 11-14
NWNW Sec. 14, T37S-R23E
San Juan County, Utah
Lease UTU-46825

CONDITIONS OF APPROVAL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Be advised that Dolar Oil Properties, L.C. is considered to be the operator of the above well and is responsible under the terms and conditions of the lease for the operations conducted on the leased lands.

Bond coverage for this well is provided by UT1082 (Principal - Dolar Oil Properties, L.C.) via surety consent as provided for in 43 CFR 3104.2.

This office will hold the aforementioned operator and bond liable until the provisions of 43 CFR 3106.7-2 continuing responsibility are met.

SELF-CERTIFICATION STATEMENT

Under the Federal regulations in effect as of June 15, 1988, designation of operator forms are no longer required when operator is not 100% record title holder. An operator is now required to submit a Self-Certification Statement to the appropriate Bureau office stating that said operator has the right to operate upon the leasehold premises.

Please be advised that:

Dolar Oil Properties, L.C.
935 E. South Union Avenue, Suite D-202
Midvale, Utah 84047

is considered to be the operator of Well No. **Cherokee Federal Well No. 11-14**, Section 14: NWNW, Township 37 South, Range 23 East, SLB&M, Lease U-46825, San Juan County, Utah; and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by Utah Federal Bond UT-1082.

Dolar Oil Properties, L.C.

By:  _____

Title: Managing Member

DOLAR OIL PROPERTIES LC

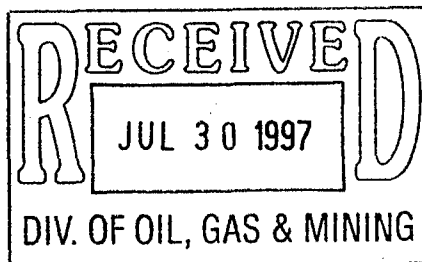


Phone: (801) 561-3121
Fax: (801) 561-3133

935 East South Union Avenue
Suite D-202
Salt Lake City, Utah 84047

July 28, 1997

Ms. Lesha Cordova
Utah State Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, UT 84114-5801



RE: Sundry notices for the Cherokee Field
Township 37 South, Range 23 East
San Juan County, Utah

Dear Lesha:

Enclosed please find photocopies of executed change of operator sundry notices for the following wells: Cherokee Federal #11-14, Cherokee Federal #22-14, Cherokee Federal #33-14, and Cherokee Federal #43-14 located in San Juan County, Utah. Attached to the sundry notices you will find a Self-Certification Notice and a Conditions of Approval. Also enclosed please find a sundry notice for each well from Integrity Financial concerning the release of bond number 9009293. As well as sundry notices from Dolar Oil Properties, L.C. releasing Integrity's bond and activating BLM Bond number UT1082. Thank you for your time and attention to this matter. Please do not hesitate to call should you have any questions.

Sincerely yours,

DOLAR OIL PROPERTIES, L.C.


Mark S. Dolar, CPL/ESA

MSD/ckk
Enclosures (12)

A:CKDASUNDRYCHERUT

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Integrity Financial

3. Address and Telephone No.

c/o Petroco, Inc., P.O. Box 1622, Roosevelt, UT 84066

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

810' FNL & 1550" FWL Sec. 14 - T37S-23E

5. Lease Designation and Serial No.

U-46825

6. If Indian, Allottee or Tribe Name

N/A

7. If Unit or CA, Agreement Designation

N/A

8. Well Name and No.

Cherokee Federal #11-14

9. API Well No.

43-037-31290

10. Field and Pool, or Exploratory Area

Cherokee

11. County or Parish, State

San Juan County,
Utah

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent
☒ Subsequent Report
☐ Final Abandonment Notice

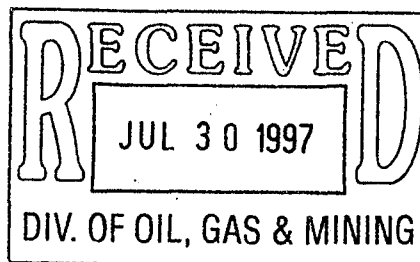
TYPE OF ACTION

- ☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other Releasing bond number.
☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Please be advised that effective July 1, 1997, Dolar Oil Properties, L.C. will be Operator of the Cherokee Federal #11-14 well.
Please release BLM Bond No. 9009293. The New bond no. is UT1082 from Dolar Oil Properties, L.C., 935 E. South Union Avenue, Suite D-202, Midvale, UT 84047.



14. I hereby certify that the foregoing is true and correct

Signed

Title

Date

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See instruction on Reverse Side

OPERATOR CHANGE WORKSHEET

Attach all documentation received by the division regarding this change.

Initial each listed item when completed. Write N/A if item is not applicable.

Routing	
1-INT	6-REC
2-CLH	7-KAS
3-DTS	8-SI
4-VLD	9-FILE
5-JRB	

- ☒ Change of Operator (well sold) ☐ Designation of Agent
☐ Designation of Operator ☐ Operator Name Change Only

The operator of the well(s) listed below has changed, effective: 7-1-97

TO: (new operator) DOLAR OIL PROPERTIES LC
 (address) 935 E S UNION AVE #D-202
MIDVALE UT 84047
MARK DOLAR
 Phone: (801) 561-3121
 Account no. N1680 (7-30-97)

FROM: (old operator) INTEGRITY FINANCIAL
 (address) C/O PETROCO, INC.
PO BOX 1622
ROOSEVELT UT 84066
 Phone: (801) 722-3000
 Account no. N7155(A)

WELL(S) attach additional page if needed:

Name: <u>CHEROKEE FED 11-14/IS</u>	API: <u>43-037-31290</u>	Entity: <u>10694</u>	S	<u>14</u>	T	<u>37S</u>	R	<u>23E</u>	Lease: <u>U46825</u>
Name: <u>CHEROKEE FED 22-14/IS</u>	API: <u>43-037-31367</u>	Entity: <u>10694</u>	S	<u>14</u>	T	<u>37S</u>	R	<u>23E</u>	Lease: <u>U46825</u>
Name: <u>CHEROKEE FED 33-14/IS</u>	API: <u>43-037-31316</u>	Entity: <u>10757</u>	S	<u>14</u>	T	<u>37S</u>	R	<u>23E</u>	Lease: <u>U40440</u>
Name: <u>CHEROKEE FED 43-14/IS</u>	API: <u>43-037-31364</u>	Entity: <u>10757</u>	S	<u>14</u>	T	<u>37S</u>	R	<u>23E</u>	Lease: <u>U40440</u>
Name: _____	API: _____	Entity: _____	S	_____	T	_____	R	_____	Lease: _____
Name: _____	API: _____	Entity: _____	S	_____	T	_____	R	_____	Lease: _____
Name: _____	API: _____	Entity: _____	S	_____	T	_____	R	_____	Lease: _____

OPERATOR CHANGE DOCUMENTATION

- (r649-8-10) Sundry or other legal documentation has been received from the **FORMER** operator (attach to this form). *(Rec'd 7-30-97)*
- (r649-8-10) Sundry or other legal documentation has been received from the **NEW** operator (Attach to this form). *(Rec'd 7-18-97)*
- The Department of Commerce has been contacted if the new operator above is not currently operating any wells in Utah. Is the company registered with the state? (yes/no) ____ If yes, show company file number: #LC012098. *(eff. 7-7-96)*
- FOR INDIAN AND FEDERAL WELLS ONLY.** The BLM has been contacted regarding this change. Make note of BLM status in comments section of this form. BLM approval of **Federal** and **Indian** well operator changes should ordinarily take place prior to the division's approval, and before the completion of steps 5 through 9 below.
- Changes have been entered in the Oil and Gas Information System (3270) for each well listed above. *(7-30-97)*
- Cardex file has been updated for each well listed above. *(7-30-97)*
- Well file labels have been updated for each well listed above. *(7-30-97)*
- Changes have been included on the monthly "Operator, Address, and Account Changes" memo for distribution to Trust Lands, Sovereign Lands, UGS, Tax Commission, etc. *(7-30-97)*
- A folder has been set up for the **Operator Change file**, and a copy of this page has been placed there for reference during routing and processing of the original documents.

ENTITY REVIEW

- Yes 1. (r649-8-7) Entity assignments have been reviewed for all wells listed above. Were entity changes made? (yes/no) ____ If entity assignments were changed, attach copies of Form 6, Entity Action Form.
- N/A 2. Trust Lands, Sovereign Lands, Tax Commission, etc., have been notified through normal procedures of entity changes.

BOND VERIFICATION - (FEE WELLS ONLY)

- N/A 1. (r649-3-1) The NEW operator of any fee lease well listed above has furnished a proper bond.
- ____ 2. A copy of this form has been placed in the new and former operator's bond files.
- ____ 3. The FORMER operator has requested a release of liability from their bond (yes/no) ____, as of today's date _____. If yes, division response was made to this request by letter dated _____.

LEASE INTEREST OWNER NOTIFICATION OF RESPONSIBILITY

- N/A 1. Copies of documents have been sent on _____ to _____ at Trust Lands for changes involving State leases, in order to remind that agency of their responsibility to review for proper bonding.
- 8/1/97
Yes 2. (r649-2-10) The former operator of any fee lease wells listed above has been contacted and informed by letter dated _____ 19 ____, of their responsibility to notify all interest owners of this change.

FILMING

- Yes 1. All attachments to this form have been microfilmed. Today's date: 8-8-97.

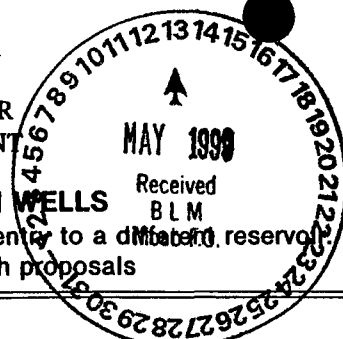
FILING

- ____ 1. Copies of all attachments to this form have been filed in each well file.
- ____ 2. The original of this form, and the original attachments are now being filed in the Operator Change file.

COMMENTS

970730 film / Maab Appr. 7-16-97 & 7-1-97.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT



FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reenter to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

B.K. Seeley, Jr. doing business as Seeley Oil Company

3. Address and Telephone No.

P.O. Box 9015, Salt Lake City, Utah 84109-0015

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

810' FNL & 1550" FWL Sec. 14, T37S-R23E

5. Lease Designation and Serial No.

U-46825

6. If Indian, Allottee or Tribe Name

N/A

7. If Unit or CA, Agreement Designation

N/A

8. Well Name and No.

Cherokee Federal #11-14

9. API Well No. -

43-037-31290

10. Field and Pool, or Exploratory Area

Cherokee Field

11. County or Parish, State

San Juan County,
Utah

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent
☒ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other Change of Operator
☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

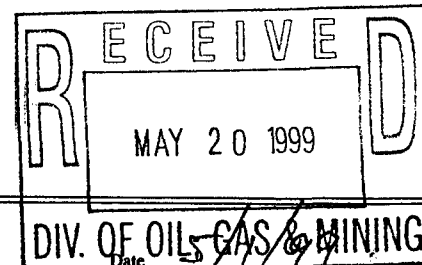
(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Please be advised that effective May 1, 1999, B.K. Seeley, Jr., doing business as Seeley Oil Company will be the Operator of the Cherokee Federal 11-14; SE 1/4 of Section 14, T37S-R23E; San Juan County, Utah; and is responsible for the operations conducted in the subject well.

B.K. SEELEY JR., DOING BUSINESS AS SEELEY OIL COMPANY IS RESPONSIBLE UNDER THE TERMS AND CONDITIONS OF THE LEASE FOR OPERATIONS CONDUCTED ON THE LEASED LANDS OR PORTIONS THEREOF.

BOND COVERAGE FOR THIS WELL IS PROVIDED BY UTAH FEDERAL BOND NO. 0692. FORMER OPERATOR WAS DOLAR OIL PROPERTIES, L.C.



14. I hereby certify that the foregoing is true and correct

Signed B.K. Seeley, Jr.

Title owner

(This space for Federal or State office use)

Assistant Field Manager,
Division of Resources

Approved by William M. [Signature]

Title

Date

5/14/99

Conditions of approval, if any:

CONDITIONS OF APPROVAL ATTACHED

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

cc: Dolar Oil Properties, L.C. 5/14/99
DNM

SELF-CERTIFICATION STATEMENT

Under the Federal regulations in effect as of June 15, 1988, designation of operator forms are no longer required when operator is not 100% record title holder. An operator is now required to submit a Self-Certification Statement to the appropriate Bureau office stating that said operator has the right to operate upon the leasehold premises.

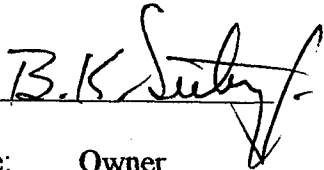
Please be advised that:

B.K. Seeley, Jr., doing business as Seeley Oil Company
P.O. Box 9015
Salt Lake City, Utah 84109-0015

is considered to be the operator of Well No. **Cherokee Federal Well No. 11-14**, Section 14: NW $\frac{1}{4}$ NW $\frac{1}{4}$, Township 37 South, Range 23 East, SLB&M, Lease U-46825, San Juan County, Utah; and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by Utah Federal Bond 0692.

B.K. Seeley, Jr., doing business as Seeley Oil Company

By:



Title: Owner

B.K. Seeley, Jr., doing business as Seeley Oil Company
Well No. Cherokee Federal 11-14
NWNW Sec. 14, T37S-R23E
San Juan County, Utah
Lease UTU-46825

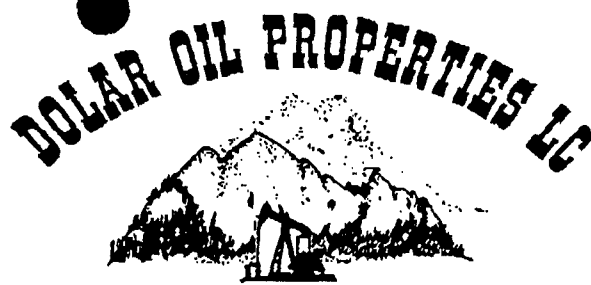
CONDITIONS OF APPROVAL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Be advised that B.K. Seeley, Jr., doing business as Seeley Oil Company is considered to be the operator of the above well and is responsible under the terms and conditions of the lease for the operations conducted on the leased lands.

Bond coverage for this well is provided by Utah Federal Bond No. 0692 (Principal -B.K. Seeley, Jr., doing business as Seeley Oil Company) via surety consent as provided for in 43 CFR 3104.2.

This office will hold the aforementioned operator and bond liable until the provisions of 43 CFR 3106.7-2 continuing responsibility are met.



Phone: (801) 561-3121
Fax: (801) 561-3133

935 East South Union Avenue
Suite D-202
Salt Lake City, Utah 84047

July 22, 1999

FAX MESSAGE:

To:
Kristen Riesbeck
State of Utah Division of Oil & Gas

From:
Mark S. Dolar

Subject:
Sale of Cherokee Field
Township 37 South, Range 23 East, SLM
Section 14: All
San Juan County, UT

Kristen:

Please be advised Dolar Oil Properties, L.C. sold the Cherokee #11-14, #22-14, #33-14 and #43-14 wells to Seeley Oil Company. The sale was effective May 1, 1999. Please correct your records to reflect the new ownership.

Thank you for your attention to this matter.

DOLAR OIL PROPERTIES, L.C.

Mark S. Dolar, CPL/ESA

OPERATOR CHANGE WORKSHEET

Routing:

1-KDR	6-KAS ✓
2-GLH	7-SJ ✓
3-JRB	8-FILE
4-CDW	
5-KDR ✓	

Attach all documentation received by the division regarding this change.

Initial each listed item when completed. Write N/A if item is not applicable.

☒ Change of Operator (well sold)☐ Designation of Agent☐ Designation of Operator☐ Operator Name Change OnlyThe operator of the well(s) listed below has changed, effective: 5-1-99

TO: (new operator) SEELEY OIL COMPANY
 (address) P.O. BOX 9015
SALT LAKE CITY, UT 84109

Phone: (801) 278-9755Account no. N2880

FROM: (old operator) DOLAR OIL PROPERTIES
 (address) 935 E. UNION PARK AVE. #D-202
MIDVALE, UT 84047

MARK DOLARPhone: (801) 561-3121Account no. N1680

WELL(S) attach additional page if needed:

name: <u>CHEROKEE FED. 11-14</u>	API: <u>43-037-31290</u>	Entity: <u>10694</u>	S	<u>14</u>	T	<u>37S</u>	R	<u>23E</u>	Lease: <u>U-46825 (FED)</u>
name: <u>CHEROKEE FED. 22-14</u>	API: <u>43-037-31367</u>	Entity: <u>10694</u>	S	<u>14</u>	T	<u>37S</u>	R	<u>23E</u>	Lease: <u>U-46825 (FED)</u>
name: <u>CHEROKEE FED. 33-14</u>	API: <u>43-037-31316</u>	Entity: <u>10757</u>	S	<u>14</u>	T	<u>37S</u>	R	<u>23E</u>	Lease: <u>U-40440 (FED)</u>
name: <u>CHEROKEE FED. 43-14</u>	API: <u>43-037-31364</u>	Entity: <u>10757</u>	S	<u>14</u>	T	<u>37S</u>	R	<u>23E</u>	Lease: <u>U-40440 (FED)</u>
name: _____	API: _____	Entity: _____	S	_____	T	_____	R	_____	Lease: _____
name: _____	API: _____	Entity: _____	S	_____	T	_____	R	_____	Lease: _____
name: _____	API: _____	Entity: _____	S	_____	T	_____	R	_____	Lease: _____

OPERATOR CHANGE DOCUMENTATION

DR 1. (r649-8-10) Sundry or other legal documentation has been received from the **FORMER** operator (attach to this form). *(Rec'd 7.22.99)*

DR 2. (r649-8-10) Sundry or other legal documentation has been received from the **NEW** operator (Attach to this form). *(Rec'd 5.20.99)*

HA 3. The **Department of Commerce** has been contacted if the new operator above is not currently operating any wells in Utah. Is the company registered with the state? (yes/no) _____ If yes, show company file number: _____

DR 4. **FOR INDIAN AND FEDERAL WELLS ONLY.** The BLM has been contacted regarding this change. Make note of BLM status in comments section of this form. BLM approval of **Federal** and **Indian** well operator changes should ordinarily take place prior to the division's approval, and before the completion of steps 5 through 9 below. *(Rec'd 5.20.99)*

DR 5. Changes have been entered in the **Oil and Gas Information System** (3270) for each well listed above. *(8.16.99)*

DR 6. Cardex file has been updated for each well listed above.

DR 7. Well file labels have been updated for each well listed above. *(new filing system)*

8. Changes have been included on the monthly "Operator, Address, and Account Changes" memo for distribution to Trust Lands, Sovereign Lands, UGS, Tax Commission, etc. *(8.16.99)*

DR 9. A folder has been set up for the **Operator Change file**, and a copy of this page has been placed there for reference during routing and processing of the original documents.

ENTITY REVIEW

- ☒ 1. (r649-8-7) Entity assignments have been reviewed for all wells listed above. Were entity changes made? (yes/no) no If entity assignments were changed, attach copies of Form 6, Entity Action Form.
- ☒ 2. Trust Lands, Sovereign Lands, Tax Commission, etc., have been notified through normal procedures of entity changes.

BOND VERIFICATION - (FEE WELLS ONLY)

- ☒ 1. (r649-3-1) The NEW operator of any fee lease well listed above has furnished a proper bond.
- ☒ 2. A copy of this form has been placed in the new and former operator's bond files.
- ☒ 3. The FORMER operator has requested a release of liability from their bond (yes/no) no, as of today's date 11/3/99. If yes, division response was made to this request by letter dated 11/3/99.

LEASE INTEREST OWNER NOTIFICATION OF RESPONSIBILITY

- ☒ 1. Copies of documents have been sent on 11/3/99 to Trust Lands at Trust Lands for changes involving State leases, in order to remind that agency of their responsibility to review for proper bonding.
- ☒ 2. (r649-2-10) The former operator of any fee lease wells listed above has been contacted and informed by letter dated 11/3/99 19 99, of their responsibility to notify all interest owners of this change.

FILMING

- ☒ 1. All attachments to this form have been microfilmed. Today's date: 11.3.99.

FILING

- ☐ 1. Copies of all attachments to this form have been filed in each well file.
- ☐ 2. The original of this form, and the original attachments are now being filed in the Operator Change file.

COMMENTS

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

FORM APPROVED
OMB No. 1004-0135
Expires July 31, 1996

5. Lease Serial No. 4-46825

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No. Cherokee Fed. #11-14

9. API Well No. 43-037-31290

10. Field and Pool, or Exploratory Area
Cherokee Field

11. County or Parish, State
San Juan Co, Utah

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator Seckey oil company

3a. Address RD. Box 9015, SLC, Ut. 3b. Phone No. (include area code) 801-467-6419

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
NW/NW Sec. 14-T. 37S - R. 23E

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

We desire to change well name to:

Bonnie Federal #11-14

RECEIVED

APR 10 2000

DIVISION OF
OIL, GAS AND MINING

From Cherokee Fed. #11-14

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

B.K. Seckey Jr.

Title

owner

Signature

B.K. Seckey Jr.

Date

3/17/00

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

ACCEPTED

Title

Division of Resources

Date

MAR 20 2000

Office

Moab Field Office

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Form 9-221
(May 1983)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input checked="" type="checkbox"/> <u>All oil + gas wells</u>		5. LEASE DESIGNATION AND SERIAL NO.	
2. NAME OF OPERATOR <u>Seeley Oil Company, LLC.</u>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
3. ADDRESS OF OPERATOR <u>P.O. Box 9015, S. L. C., Utah 84109</u>		7. UNIT AGREEMENT NAME	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) <u>At surface</u>		8. FARM OR LEASE NAME	
14. PERMIT NO.		9. WELL NO.	
15. ELEVATIONS (Show whether DT, RT, OM, etc.)		10. FIELD AND POOL, OR WILDCAT	
		11. SEC., T., R., M., OR BLM. AND SURVEY OR AREA	
		12. COUNTY OR PARISH	
		13. STATE	

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

☐
☐
☐
☐
☐

FULL OR ALTER CASING

☐
☐
☐
☐
☐

FRACTURE TREAT

MULTIPLE COMPLETION

SHOOT OR ACIDIZE

ABANDON*

REPAIR WELL

CHANGE PLANS

(Other)

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

☐
☐
☐

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

this is to inform you that effective with January 2003 we changed our name from "B.K. Seeley Jr. dba Seeley oil Company"

To: Seeley oil Company, L.L.C.

Please change your well records to reflect this change.

RECEIVED

MAR 03 2003

DIV. OF OIL, GAS & MINING

18. I hereby certify that the foregoing is true and correct

SIGNED

B.K. Seeley Jr.

TITLE

Member

DATE

3/03/03

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

*See Instructions on Reverse Side



Ted Boyer
Executive Director
Department of Commerce

Michael O. Leavitt
Governor
State of Utah

Kathy Berg
Director
Division of Corporations
& Commercial Code

STATE OF UTAH
DEPARTMENT OF COMMERCE
DIVISION OF CORPORATIONS & COMMERCIAL CODE
CERTIFICATE OF REGISTRATION

DE BENNEVILLE K SEELEY, JR
SEELEY OIL COMPANY LLC
3964 S SUMMERSPRING LANE
SALT LAKE CITY UT 84124

MAR 03 2003
DIV. OF OIL, GAS & MINING



State of Utah
Department of Commerce
Division of Corporations & Commercial Code

CERTIFICATE OF REGISTRATION

LLC - Domestic

This certifies that SEELEY OIL COMPANY LLC has been filed and approved on January 09, 2003 and has been issued the registration number 5260313-0160 in the office of the Division and hereby issues this Certification thereof.

KATHY BERG
Division Director

RECEIVED

MAR 03 2003

DIV. OF OIL, GAS & MINING

well_name	section	township	range	api	entity	lease_type	status	well_type
STATE 36-13	36	15S	12E	43-007-30084	6430	STATE	S	OW
GRASSY TRAIL 36-2	36	15S	12E	43-007-30103	9577	STATE	S	OW
FEDERAL 35-44	35	15S	12E	43-007-30108	99998	FEDERAL	PA	NA

FEDERAL 1	01	16S	12E	43-015-15604	635	FEDERAL	TA	OW
FEDERAL 2	01	16S	12E	43-015-15607	635	FEDERAL	TA	OW
FEDERAL 1-14	01	16S	12E	43-015-30180	9575	FEDERAL	S	OW
STATE 2-43X	02	16S	12E	43-015-30100	6440	STATE	S	OW
STATE 2-23	02	16S	12E	43-015-30111	99990	STATE	I	WD
FEDERAL 3-23	03	16S	12E	43-015-30127	99998	FEDERAL	PA	D
FEDERAL 4-32	04	16S	12E	43-015-30121	6460	FEDERAL	S	OW
FEDERAL 11-33	11	16S	12E	43-015-30097	6435	FEDERAL	P	OW
FEDERAL 11-41	11	16S	12E	43-015-30118	6450	FEDERAL	S	OW
FEDERAL 11-13	11	16S	12E	43-015-30120	6455	FEDERAL	S	OW
FEDERAL 11-11	11	16S	12E	43-015-30149	6490	FEDERAL	S	OW
FEDERAL 11-42	11	16S	12E	43-015-30167	6495	FEDERAL	P	OW
FEDERAL 11-23	11	16S	12E	43-015-30170	6500	FEDERAL	S	OW
FEDERAL 11-43	11	16S	12E	43-015-30172	6431	FEDERAL	S	OW
FEDERAL 12-13	12	16S	12E	43-015-30142	6485	FEDERAL	S	OW
FEDERAL 12-32	12	16S	12E	43-015-30184	9576	FEDERAL	S	OW
FEDERAL 14-11	14	16S	12E	43-015-30138	6475	FEDERAL	S	OW
FEDERAL 6-14	06	16S	13E	43-015-30187	99998	FEDERAL	LA	OW

BONNIE FEDERAL 11-14	14	37S	23E	43-037-31290	10694	FEDERAL	P	OW
BONNIE FEDERAL 33-14	14	37S	23E	43-037-31316	10757	FEDERAL	PA	GW
BONNIE FEDERAL 43-14	14	37S	23E	43-037-31364	10757	FEDERAL	P	OW
BONNIE FEDERAL 22-14	14	37S	23E	43-037-31367	10694	FEDERAL	P	GW

BLACK BULL FEDERAL 31C	31	38S	25E	43-037-31663	11352	FEDERAL	S	GW
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COWBOY 1	14	39S	22E	43-037-30012	2530	FEDERAL	S	OW
COWBOY 4	14	39S	22E	43-037-30037	2530	FEDERAL	PA	OW
COWBOY 5	14	39S	22E	43-037-30062	2530	FEDERAL	P	OW
COWBOY 7	23	39S	22E	43-037-30325	2530	FEDERAL	P	OW

RECAPTURE PKT ST 7	02	40S	22E	43-037-30701	2790	STATE	P	OW
RECAPTURE POCKET 1	03	40S	22E	43-037-30625	2780	FEDERAL	S	OW
RECAPTURE POCKET 5	10	40S	22E	43-037-30689	2785	FEDERAL	P	OW
GOVT NORWOOD 1	15	40S	22E	43-037-15611	985	FEDERAL	P	OW
1-25A KGS FEDERAL	25	40S	22E	43-037-30906	10025	FEDERAL	S	OW

OPERATOR CHANGE WORKSHEET

ROUTING

1. GLH
2. CDW <input checked="" type="checkbox"/>
3. FILE

Change of Operator (Well Sold)

Designation of Agent/Operator

X Operator Name Change

Merger

The operator of the well(s) listed below has changed, effective:

1-9-03

FROM: (Old Operator):	TO: (New Operator):
SEELEY OIL COMPANY	SEELEY OIL COMPANY LLC
Address: P O BOX 9015	Address: P O BOX 9015
SALT LAKE CITY, UT 84109	SALT LAKE CITY, UT 84109
Phone: 1-(801)-467-6419	Phone: 1-(801)-467-6419
Account No. N2880	Account No. N2355

CA No.

Unit:

WELL(S)

NAME	SEC TWN RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
FEDERAL 6-14	06-15S-13E	43-015-30187	99998	FEDERAL	OW	LA
BONNIE FEDERAL 11-14	14-37S-23E	43-037-31290	10694	FEDERAL	OW	P
BONNIE FEDERAL 33-14	14-37S-23E	43-037-31316	10757	FEDERAL	GW	PA
BONNIE FEDERAL 43-14	14-37S-23E	43-037-31364	10757	FEDERAL	OW	P
BONNIE FEDERAL 22-14	14-37S-23E	43-037-31367	10694	FEDERAL	GW	P
COWBOY 1	14-39S-22E	43-037-30012	2530	FEDERAL	OW	S
COWBOY 4	14-39S-22E	43-037-30037	2530	FEDERAL	OW	PA
COWBOY 5	14-39S-22E	43-037-30062	2530	FEDERAL	OW	P
COWBOY 7	23-39S-22E	43-037-30325	2530	FEDERAL	OW	P
RECAPTURE POCKET STATE 7	02-40S-22E	43-037-30701	2790	STATE	OW	P
RECAPTURE POCKET 1	03-40S-22E	43-037-30625	2780	FEDERAL	OW	S
RECAPTURE POCKET 5	10-40S-22E	43-037-30689	2785	FEDERAL	OW	P
GOV'T NORWOOD 1	15-40S-22E	43-037-15611	985	FEDERAL	OW	P
1-25A KGS FEDERAL (CA-000232)	25-40S-22E	43-037-30906	10025	FEDERAL	OW	S

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

1. (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 03/03/2003
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 03/03/2003
3. The new company has been checked through the **Department of Commerce, Division of Corporations Database** on: 03/03/2003
4. Is the new operator registered in the State of Utah: YES Business Number: 5260313-0160
5. If **NO**, the operator was contacted on: _____

6. (R649-9-2)Waste Management Plan has been received on: IN PLACE

7. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: 01/14/2003

8. **Federal and Indian Units:**

The BLM or BIA has approved the successor of unit operator for wells listed on: N/A

9. **Federal and Indian Communization Agreements ("CA"):**

The BLM or BIA has approved the operator for all wells listed within a CA on: N/A

10. **Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: N/A

DATA ENTRY:

1. Changes entered in the **Oil and Gas Database** on: 03/04/2003

2. Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 03/04/2003

3. Bond information entered in RBDMS on: N/A

4. Fee wells attached to bond in RBDMS on: N/A

STATE WELL(S) BOND VERIFICATION:

1. State well(s) covered by Bond Number: 1063820156428

FEDERAL WELL(S) BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: UT 0692

INDIAN WELL(S) BOND VERIFICATION:

1. Indian well(s) covered by Bond Number: N/A

FEE WELL(S) BOND VERIFICATION:

1. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number N/A

2. The **FORMER** operator has requested a release of liability from their bond on: N/A
The Division sent response by letter on: N/A

LEASE INTEREST OWNER NOTIFICATION:

3. (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: N/A

COMMENTS: